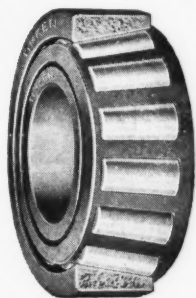


MOTOR AGE

A Chilton Class Journal Publication
Published Weekly September 27, 1928

It's Smarter



The customer may not see the bearings put into his job, but the shop men do. It is an important example in quality workmanship to use genuine Timken Bearings to replace Timkens every time.

Besides, it is quicker, because Timken service is as widespread as the use of Timken Tapered Roller Bearings, and genuine Timkens are sure to fit.

And it's smarter to use genuine Timkens because it insures against the after-grief. It's far-sighted business to see that the Timken name is on the inner and outer races.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO

TIMKEN Tapered Roller BEARINGS

A Record August exceeds any corresponding month in Hupmobile history

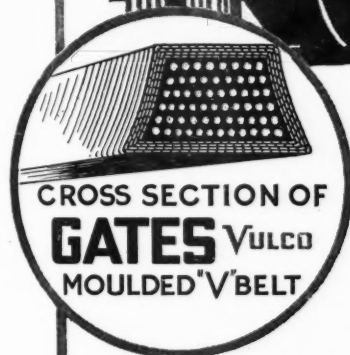
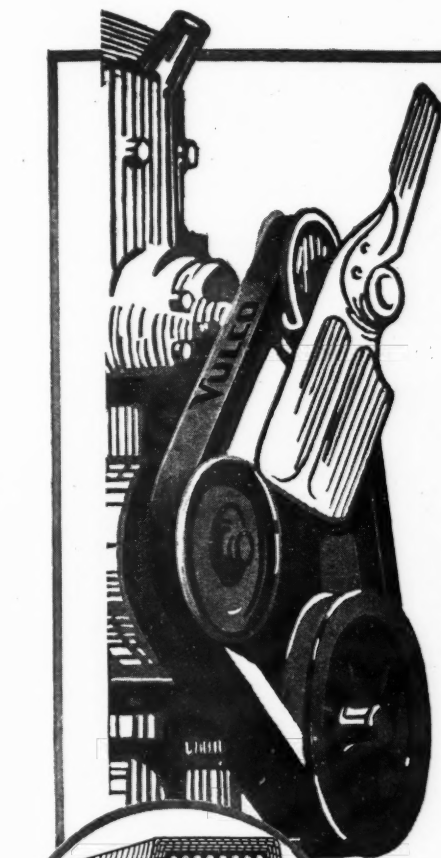
WITH shipments of 7023 Century Sixes and Eights, August Hupmobile Sales were 74% greater than the highest total in any previous August . . . ¶ August was the seventh consecutive month in which shipments during the current year exceeded any corresponding month in Hupmobile history . . . ¶ In eight months' time, Hupmobile has shipped 123 per cent of its entire total production for the year of 1927—with four months still to go . . . ¶ For this same period, Hupmobile distributors and dealers report the remarkable fact that 21.99% of Century Six and 16.14% of Century Eight Sales were made without any trades whatever.

Newly refined in every detail, the new 1929 Century Hupmobiles are accelerating the previous record sales of these popular cars. Dealers interested in this profitable selling opportunity are advised to act promptly.

Wire or write today for information on the Hupmobile contract.

HUPP MOTOR CAR CORPORATION, DETROIT, MICHIGAN

NEW 1929 HUPMOBILE
CENTURY
SIX & EIGHT



CROSS SECTION OF
GATES VULCO
MOULDED "V" BELT

THE "V" BELT

That is built like a cord tire

60 to 80 endless cords run clear around every Gates Vulco V-Belt. Built like a cord tire, it is non-stretch and almost unbreakable. That is why the Gates Vulco V-Belt is giving extra service and pleasing your customers.

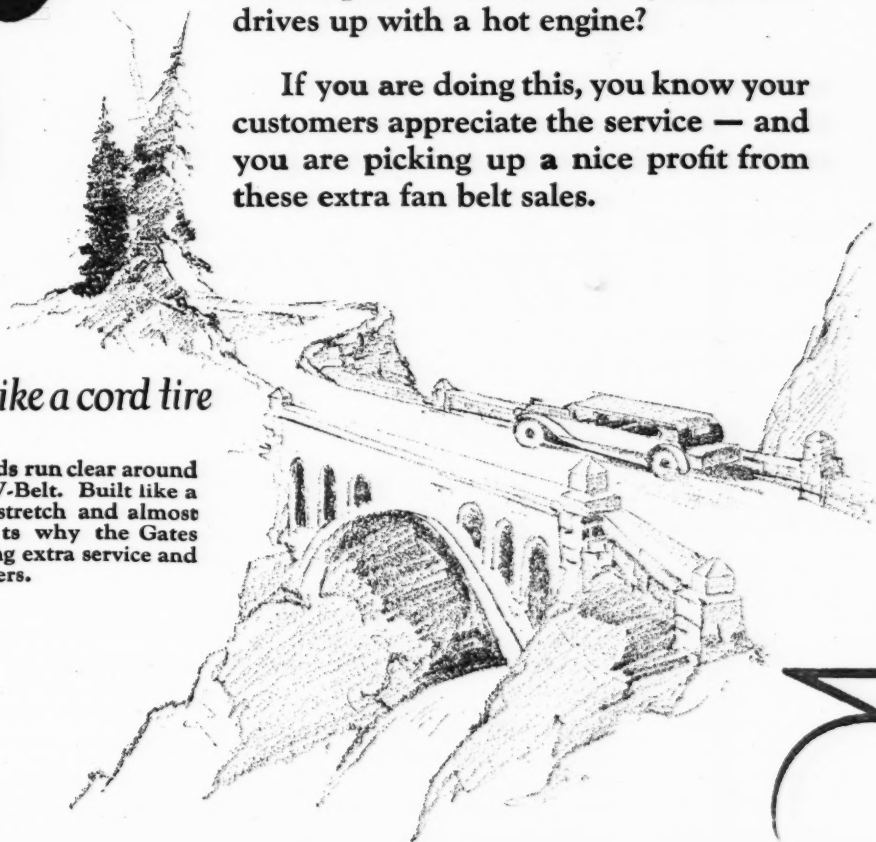
You can vouch for This

If you have ever done much shopwork, here is a fact you can vouch for—

A fan belt that slips can take more value out of an engine in one trip than can be put back for 100 times the price of a new fan belt.

Isn't it a sincere protection to your customers, then, when you lift the hood and inspect the fan belt every time a car drives up with a hot engine?

If you are doing this, you know your customers appreciate the service — and you are picking up a nice profit from these extra fan belt sales.



"The Standardized Fan Belt"

GATES VULCO BELTS

Manufactured by The Gates Rubber Company, Denver, U. S. A.

for Economical Transportation

Scoring the Year's Greatest Success

*because of Distinctive Beauty, Thrilling
Performance and Amazing Economy!*

Month after month, since the beginning of 1928, Chevrolet dealers have held first place in sales and deliveries in the entire automotive industry—for the automobile they are selling this year has swept America from coast to coast as has no other Chevrolet in Chevrolet history!

Already, over three-quarters of a million new Chevrolets have been delivered into the hands of owners since January 1st! Already, Chevrolet dealers have approached in sales volume the greatest year they have ever enjoyed! And already

the Bigger and Better Chevrolet has definitely established itself as first choice of the nation for 1928!

And small wonder—for here are provided, in generous measure, all those basic qualities that make a motor car easy to sell: marvelous beauty, thrilling performance, delightful comfort, amazing handling ease and impressive low prices!

Naturally, Chevrolet dealers everywhere are listed among the soundest and most progressive merchants in their respective communities.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation

Q U A L I T Y A T L O W C O S T

MOTOR AGE

Vol. LIV

Reg. U. S. Pat. Off.
Established 1899

No. 13

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Entered as Second Class Matter, June 2, 1927, at the Post Office at Philadelphia, Pa., under Act of March 2, 1879.

give the public a SQUARE DEAL

—and this always pays. You can do it with Advance Packings—25 uses on every car Instead of wasting time sending a man all over town looking for an odd size gasket—**CUT IT YOURSELF** . . . give your customer service and collect the cash

TENAX Unexcelled for Oil and Heat Gaskets
"Original Blue Sheet"

Thousands of repairmen will use only TENAX compressed asbestos sheet packing—FOR USE WHERE THERE IS HEAT—no matter how intense. Makes a quality job that stands up.

For Intake and Oil Conditions

TANPAC
"Sheet Packing"

For use where water, oil, gasoline and grease are encountered and where there is NO HEAT. Withstands heavy pressure and temperature up to 300°. Light in weight—and "THE TOUGHEST OF THE TOUGH."

Advance Products have been the standard quality packings for automotive replacement for more than 20 years. Order today from your jobber, or write us direct.

ADVANCE
PACKING & SUPPLY CO.
808 W. Washington Blvd.
Chicago, Ill.

Take a tip from those who failed to please



"Bill Kicker"

"Bill Kicker" exploded when he found grease-marks and scratched fenders. Somebody must pay for cleaning up—and he doesn't!

The shop that uses CAR OVERALLS never fails to please customers. CAR OVERALLS save profits—protect the car inside and out. Strong striped Denim. Serviceable. Washable. Write for price.

We are headquarters for price tags; repair order holders; muslin car covers; shop coats and mechanics' overalls.

ROAD-AD TIRE COVERS

Of Meritas enameled cloth. Smooth or long grain finish. Car Maker's emblem. Your name in colors at slight increase in price.

30 x 5.00...\$73 each
31 x 6.00...\$79 each



Keep Klean Auto Products Co., Inc.
408 E. 176th Street New York City



Where other linings fail—use

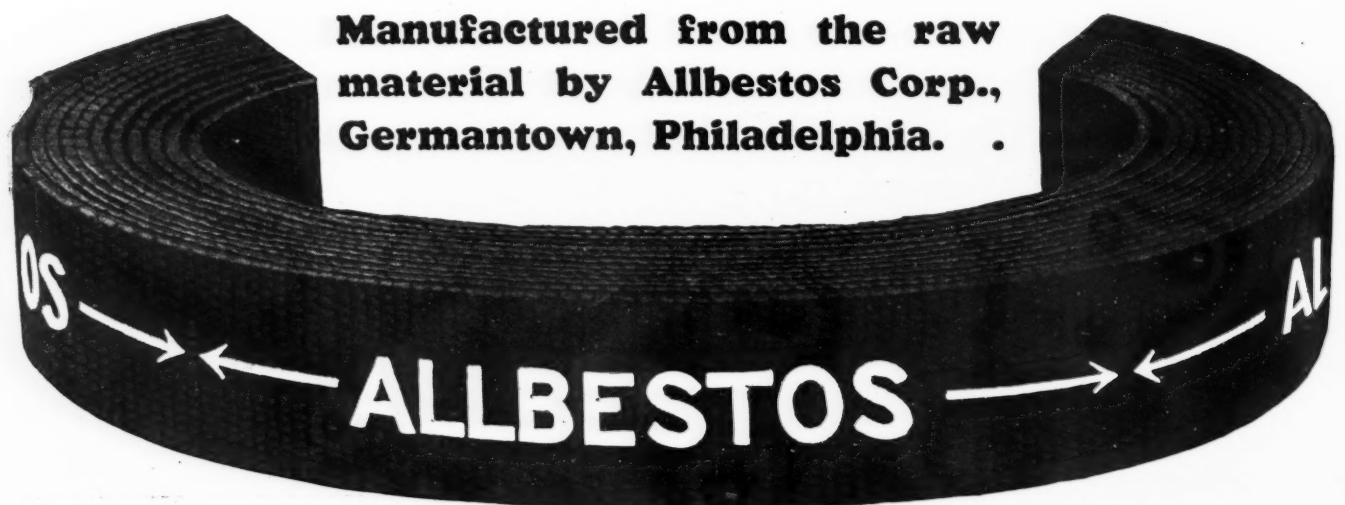
Allbestos

BRAKE LINING

Of the country's ten largest truck fleets, five . . . one half of them use Allbestos Brake Lining for replacement.

In every case Allbestos brake lining replaced other popular brands. It gave satisfaction where other linings failed. Use it! Ask your jobber's salesman.

Manufactured from the raw material by Allbestos Corp., Germantown, Philadelphia. .



STUDEBAKER

President

outsells

all other Eights!

Less than a year old, Studebaker's President Eight is already outselling every other eight-cylinder car in the world!

Introduced at the Automobile shows in January and February, The President took the lead in eight-cylinder registration of Eights in July--six months later. And registration figures show that this lead was further increased in August.

Four Reasons Why the Public Is Buying More Presidents Than Any Other Eight-Cylinder Car

1. *Proven Performance*--30,000 miles in 26,326 consecutive minutes--greatest record for sustained speed in history of the world.
2. *Beauty*--charm--colors that sing--smart, new and graceful lines!
3. *Luxury*--matchless ease of riding due to Studebaker's exclusive ball bearing spring shackles.
4. *Value*--One-Price price beginning at \$1685 f. o. b. factory.

No wonder the public has chosen it beyond all others!

The Studebaker franchise gives you not only this Ace of Eights selling from \$1685 to \$2485; but the famous Studebaker Commander at \$1435 to \$1665; The Dictator at \$1185 to \$1395; and The Erskine Six at \$835 to \$1045--each a top value in its price field--each a record holder--each in keen demand.

What a line to sell! Where can you match it?

Your wire will bring details of this splendid franchise. Send it now!

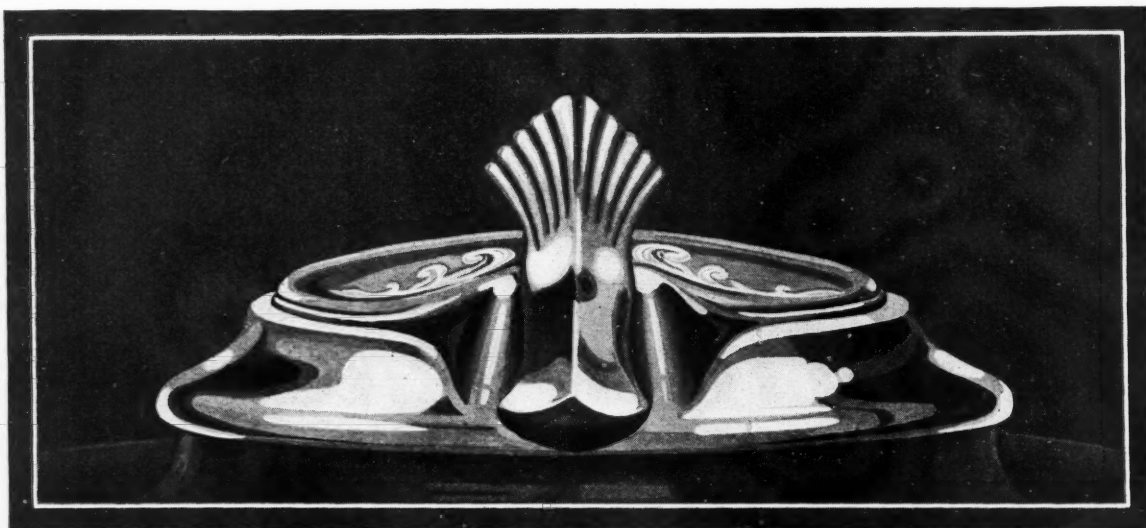
Department 51

THE STUDEBAKER CORPORATION OF AMERICA, SOUTH BEND, INDIANA

MONOGRAM

ORIGINAL

SELF LOCKING RADIATOR CAP



For the New Buick Cars

THIS beautiful new BUICK MONOGRAM Radiator Cap is the result of insistent demand from dealers and jobbers all over the country, for an easy filling, hinged lid radiator cap for the (new) 1929 Buick Car. It is positively the last word in design and is strictly in keeping with the beautiful new Buick. It makes radiator filling easy; something all Monogram caps do, thus insuring at all times proper attention to the car cooling system. This is a chrome plated cap of strictly Monogram quality. If you do not know the name and address of nearest Monogram jobber write us, also ask for additional literature. Get your order in immediately to insure its being filled promptly.

List price, \$4.00

THE KINGSLEY-MILLER CO.

625 WEST JACKSON BOULEVARD, CHICAGO, U. S. A.

NEW LAPS Systems

REG. U. S. PAT. OFF.

with Parts Index System, Bin Loading Diagram, *MOVIT* quick-change dividers

Stock Record Card furnished for use in Parts Index Board

| NAME OF PART | PART NUMBER | LIST PRICE | LOCATION | | | MIN. | MAX. |
|--------------|-------------|------------|----------|-------|-----|------|------|
| | | | UNIT | SHELF | BIN | | |
| CON. ROD | 18131 | 2 10 | 12 | A | 4 | 4 | 8 |
| PISTON | | | | | 7 | 8 | 16 |
| FAN | | | | | 3 | 1 | 3 |
| | | | | | | 3 | 7 |
| | | | | | | 2 | 5 |

MOVIT, the quick change divider fastener that makes every bin in a LAPS System instantly adjustable and eliminates the use of bolts in fastening dividers.

PATENT APPLIED FOR

Parts Bin Loading Diagram for unit 1 of the 2 unit system in background. This diagram furnished with each system indicates location of bins in car assembly group where parts are to be stored.

Parts Index Board furnished with every new LAPS system. It provides a complete stock index record for every part stored in the bins.

END IRONS for LONG PARTS

A 2-UNIT LAPS SYSTEM
REG. U. S. PAT. OFF.

Instantly adjustable in bin Size and Arrangement — Adaptable to any method of Parts Storage

WHEN you purchase a new LAPS System you get the following proven advantages of parts storage and stock record keeping.

(1) Correctly designed parts bins for a balanced stock with labels for every bin.

(2) A parts index system that is adaptable to listing parts as in any car manufacturer's parts book, or in accordance with your own method of listing and locating parts, or listing and locating parts numerically, alphabetically, grouped by car assembly numerically or grouped by car assembly alphabetically.

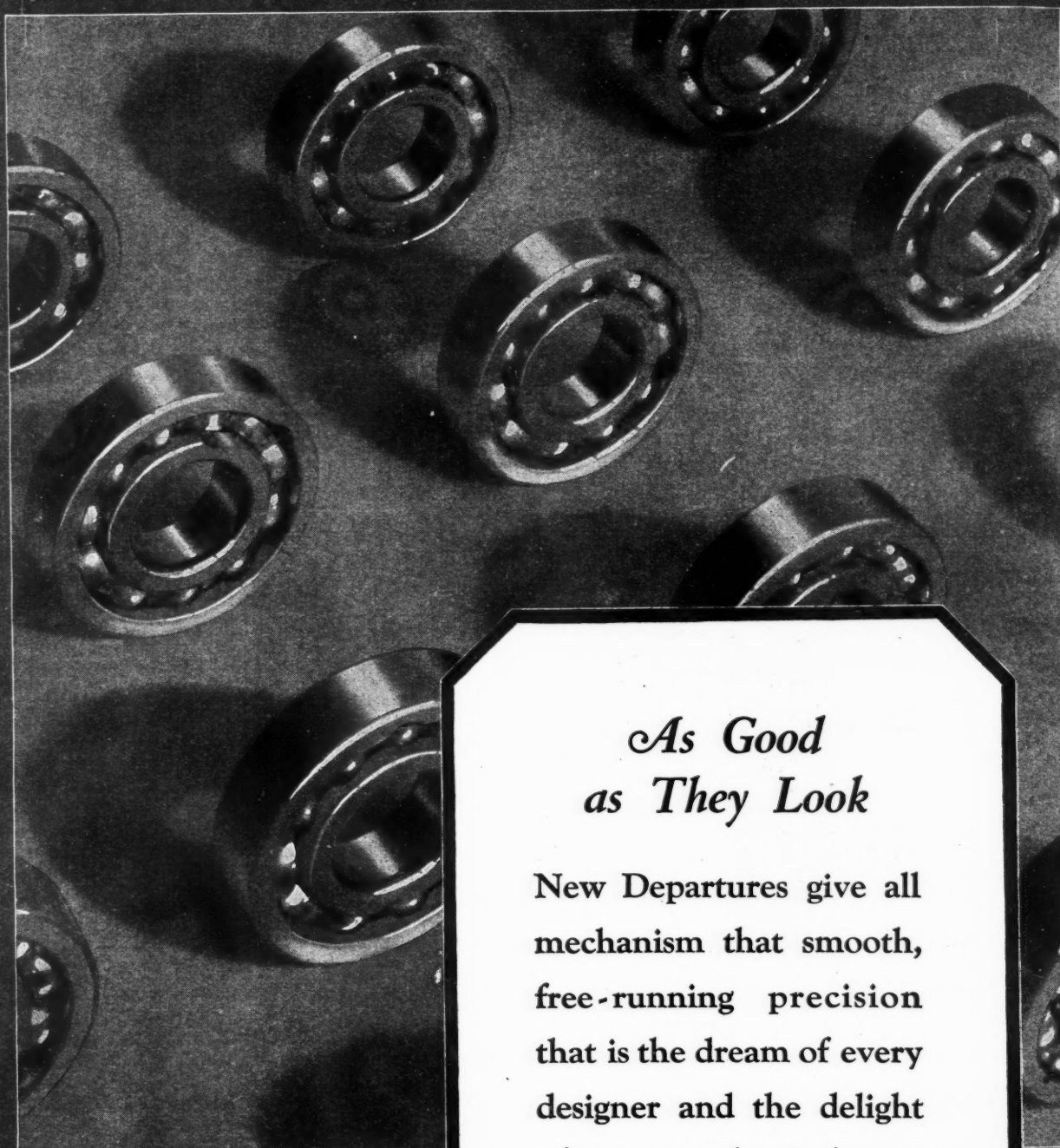
(3) MOVIT, the divider fastener that makes every LAPS divider a quick change divider. This feature is

used exclusively in LAPS and provides for the quickest rearrangement of bins or bin sizes possible to keep system up to date with shifting parts stocks and new car models.

(4) A system that will fit your stock requirements. LAPS systems are built in various sizes ranging from a 1 unit system carrying a \$500 stock, to a 24 unit system carrying a \$16,000 stock.

Ask your jobber to give you full details on Lupton Auto Parts Storage Systems and make certain you get MOVIT, the quick-change divider fastener. Manufactured exclusively by David Lupton's Sons Company, General Motors Building, Detroit, Mich.

LUPTON AUTO PARTS STORAGE



*As Good
as They Look*

New Departures give all
mechanism that smooth,
free-running precision
that is the dream of every
designer and the delight
of every mechanical man.

New Departure Ball Bearings

The New Departure Manufacturing Co.

Chicago, Detroit, Toledo, Ohio

MOTOR AGE

VOLUME LIV

Philadelphia, September 27, 1928

NUMBER 13

Fourth Quarter Record Breaker

All Indications Point to New
Marks for Next Three
Months

STOCKS ARE LOW

NEW YORK, Sept. 25—Operations approximating capacity will be carried through to the end of the month in practically all leading automobiles and truck factories and will bring the total for the month well in advance of the 400,000 mark. Indications at the present time are that the month will compare favorably with the 485,000 total set up in August though a minor falling off is certain, because of fewer working days and the interference of the Labor Day closing.

Entering the last quarter some decline in operations will occur from the high third-quarter totals, but all signs point to the establishment of new fourth-quarter records. Dealers are far from having caught up with orders in many instances and stocks of new cars about the country are lower for the season than in recent years. Seasonal declines in sales must be anticipated, but there is every indication that these will be gradual.

Though sales of Ford Motor Co. of Canada have reached a point where dealers are now able to make deliveries within only a few days' delay, the Ford dealers of the United States are still weeks behind in deliveries and the factory will continue on increasing schedule for at least the remaining months of the year.

Von Schlegell Leaves Hupp

DETROIT, Sept. 24—Arthur Von Schlegell, first vice-president, secretary and treasurer of the Hupp Motor Car Corp., resigned at the annual meeting of the directors. Mr. Von Schlegell will retain his position as a director. As a result of his resignation Ralph P. Lyons, formerly comptroller, was elected treasurer and George E. Roehm, assistant secretary, was made secretary.

Ruben-Moss Take on Shaler

NEW YORK, Sept. 24—The Shaler Company, Waupun, Wis., has appointed Ruben-Moss Company, 17 West 60th St., New York City, to represent it in the eastern territory.

Air Mail Aids Contractor in Meeting Date

— + — + —
ROCKFORD, ILL., Sept. 24—The National Lock Company of this city this week spent \$69.95 for postage upon a 44-lb. package of locks dispatched via air mail to Los Angeles to make delivery of the furnishings on contract schedule. The manufacturing company faced a penalty of \$150 a day for non-delivery and in resorting to the air mail established a local record for the largest air-mail shipment from the city.

Kaufmann Fargo Sales Head

DETROIT, Sept. 24—Harry A. Kaufmann will be sales manager of Chrysler Corporation's newly organized Fargo Motor Corporation, it was announced by J. E. Fields, vice-president in charge of sales of Chrysler. Mr. Kaufmann brings to his new position 19 years' experience enjoyed in the commercial car and tractor field. He joined Chrysler last spring as an expert in commercial car merchandising and distribution.

Keegan Joins World Bestos

PATERSON, N. J., Sept. 27—J. Frank Keegan has become associated with the World Bestos Corp. He will be in charge of sales in Illinois, Indiana, part of Michigan and Wisconsin. He is taking the place of William H. Sullivan, who has resigned.

Martin Directing Leco Sales

CHICAGO, Sept. 24—W. F. Martin, for several years president and general manager of the Romar Products Corporation, manufacturers of Romar bumpers, 624 S. Michigan Ave., has resigned from that company and disposed of his interests. It is announced the Romar Products Corporation will continue under the guidance of C. P. Kraft.

Mr. Martin has been elected vice-president and director in charge of sales of the Lubricating Equipment Company.

Chevrolet Production Up

DETROIT, Sept. 25—Chevrolet Motor Co. production in August totaled 122,702 against 120,000 in July and 91,461 in August, 1927.

Durant Models Much Improved

Changes In Chassis and Body
Pronounced; "Six" Has
Seven Models

EQUIPMENT ADDED

ELIZABETH, N. J., Sept. 24—Durant Motors, Inc., has announced the new models of the Durant four and the Durant six cylinder series "60."

Improvements include chromium plated exterior hardware and fittings and the design of the hoods has been improved by the use of double bank louvres set in embossed panels. Cowl lamps are now standard equipment, as are also combination stop and tail lights. The wheelbase of the new Durant six series "60" has been increased from 107 in. to 109 in.

This car is powered with a Continental six-cylinder Red Seal motor, designed especially for it by Durant engineers, and uses the Lanchester vibration damper.

Bumpers and bumperettes and a newly designed radiator cap are available on the standard line of both cars at a slight extra cost.

The De Luxe models of these two new cars are equipped with six wire wheels, the two spare wheels being set in fender wells in the two front fenders.

The Durant four-cylinder line, consisting of two-door sedan, four-door sedan, coupe and roadster, together with two De Luxe models, the De Luxe four-door sedan and De Luxe roadster, ranges in price from \$595 to \$775, F. O. B. Lansing, Michigan.

The new Durant six series "60" has seven models, the four-door sedan, two-door sedan, coupe, roadster, De Luxe four-door sedan, De Luxe cabriolet and De Luxe roadster, ranging in price from \$775 to \$935, F. O. B. Lansing, Michigan.

Fisher and Seaman Sail

NEW YORK, Sept. 19—Charles T. Fisher, vice-president of General Motors, and Harold B. Seaman, president of the Seaman Body Corp., sailed today aboard the S.S. Berengaria for Europe. While abroad they will visit the Paris and London shows and make a study of recent developments in the European automobile industry.

Factory Payrolls Much Higher

August, 1928, Employment is
31 Per Cent Over
August, 1927

WASHINGTON, Sept. 24—An increase of 1.5 per cent in employment and 9.2 per cent in payroll totals in manufacturing industries of the United States—the greatest gain in 6 years—was recorded by the Bureau of Labor Statistics of the Department of Labor for the month of August, 1928, over the preceding month.

The statistics for August are based on returns made by 11,097 establishments in 54 of the principal manufacturing industries of the United States, with 3,111,655 employees on their payrolls which amount weekly to the combined total of \$84,249,130.

Outstanding increases in employment percentages were noted in the automobile industry in August, 1928, over July, 1928, while 39 other industries also showed advances. The gain in the automobile industry's employment was 31.2 per cent this August over 1927.

Tunnel to Cost \$1,500,000

OAKLAND, CAL., Sept. 21—The new tunnel for the Victory Highway, which will pierce the Contra Costa hills and connect Alameda and Contra Costa Counties, or Oakland and a group of other cities, will cost, complete, \$1,500,000, according to a survey just completed by a special engineering commission.

The tunnel itself will cost \$703,000 and connecting roadways will absorb the balance. The two counties will form at once a joint highway district to raise tunnel funds and the connecting Victory Highway portion will be built from state appropriations.

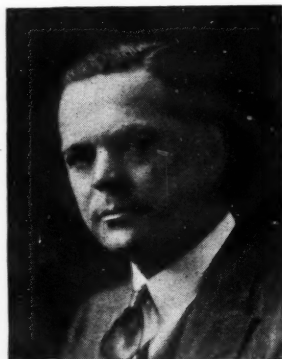
Sweeney Gets Trip East

SAN FRANCISCO, Sept. 22—Frank Sweeney, salesman for the Willys-Knight, Overland and Whippet cars in this territory, has left for the Willys-Overland factory at Toledo, as a reward for having proved himself the premier salesman for these cars in this territory. He set another world's record. He has won that prize four times.

Edward G. Budd Exhibit

PHILADELPHIA, Sept. 25—The Edward G. Budd Manufacturing Co., Philadelphia's largest manufacturing plant, will have a comprehensive exhibit at the Exposition of the American Society for Steel Treating, Oct. 8 to 12. Among other important items of its display, the Budd company will exhibit a number of single piece steel stampings typical of the million or more all-steel automobile bodies it makes every year in its Philadelphia and Detroit plants.

Advanced



C. K. Whittaker

THE recent consolidation of Studebaker and Pierce-Arrow created a number of changes in the executive personnel of Studebaker.



G. E. Read

C. K. Whittaker, formerly district manager of Central and Southern branches, is manager of branches. G. E.



L. S. Morrin

Read, formerly manager at Omaha, is manager of Central and Southern branches. L. S. Morrin, succeeds Mr. Read.

Fisher Body Plant for Oakland, Cal.

New Factory to Build Bodies
For Use in 11 Western
States

OAKLAND, CAL., Sept. 24—This city is to be the home of another automotive industry, involving the investment of half a million dollars.

The Fisher Body Corp. will begin construction of a factory for its product immediately, it is stated. This will be the first complete body parts depot and service repair factory in the industry to be located at such a distance from the home plant. From this plant Fisher bodies will be distributed to 11 western states. It will be located in Emeryville, an Oakland suburb. It will occupy an entire block. The land and building will cost \$150,000, the balance being devoted to equipment and furnishings. More than 100 men will be employed and several departmental foremen will be brought from eastern headquarters.

Graham-Paige Takes Prizes

DETROIT, Sept. 22—Switzerland's first international elegance competition, held recently at Lucerne, brought marked honor to the Graham-Paige, which was the only American car to win a prize.

Thirty leading makes of European and American automobiles were paraded before the board of judges. First and second prizes went to custom-built European cars, an Isotto-Fraschini (Italian) and a Martigny (Swiss). An eight-cylinder Graham-Paige five-passenger sedan was third, winning the highest award for cars carrying standard production bodies.

In a similar contest at Karlsbad, Czechoslovakia, a Graham-Paige took the prize in its class, defeating such European cars as the Skoda, Horch, Isotto-Fraschini, and Tatra, besides other American entries.

Belden Appoints Hofman

CHICAGO, Sept. 24—The Belden Manufacturing Co. announces the appointment of Charles Hofman, City Bank Building, Kansas City, Mo., as the Southwest representative of the Belden line of automotive, electrical and radio products. Mr. Hofman covers western Missouri, Kansas, Nebraska and Colorado.

E. V. Blake Joins Belden

CHICAGO, Sept. 25—The Belden Manufacturing Co. announces the appointment of E. V. Blake, who will travel southern Ohio, southern Indiana, southern Illinois, St. Louis and Kentucky, in behalf of the Belden line of automotive, radio and electrical products. The entire line is merchandised through jobbers in that territory.



Start Test Run

THOMAS J. LITTLE, JR., Marmon chief engineer (left) and members of his staff just before the start of a trans-continental test run in a New Series Marmon 68 Sedan

Lincoln Electric Changes

CLEVELAND, Sept. 22—The Lincoln Electric Co. of Cleveland, Ohio, announces the opening of a San Francisco office in charge of W. S. Stewart. A complete stock of "Linc-Weld" motors and "Stable-Arc" welders and arc welding supplies is being carried. L. P. Henderson, formerly of the Chicago office, has been transferred and put in charge of the Minneapolis district. Robert Notvest has been transferred from Kansas City to Indianapolis where he will have charge of the Indianapolis district. R. E. Mason has been sent to Kansas City to replace Notvest. N. L. Nye has been stationed at Akron, Ohio, under the direction of R. P. Tarbell, manager of the Cleveland district.

Hambly Sails For Europe

NEW YORK, Sept. 24—Frank L. Hambly, export manager of the Marmon Motor Car Co., sailed for Europe Sept. 22, to confer with Marmon dealers there regarding the introduction of the new series Marmon 68 and 78.

While in Europe Mr. Hambly will visit Marmon representatives in England, France, Germany, Switzerland, Italy and Spain and will attend the two great international automobile shows scheduled for October.

Mather Leaves Graham-Paige

DETROIT, Sept. 21—G. Clark Mather has resigned as consulting engineer with the Graham-Paige Motors Corp. He was formerly chief engineer of the Paige-Detroit Motor Car Co.

Armstrong Addresses Maine Assn.

NEW YORK, Sept. 21—Richard S. Armstrong, of the legal department of the National Automobile Chamber of Commerce, addressed the Maine state

automobile association and the governor of Maine, at Augusta, Thursday, Sept. 20. He spoke in behalf of the uniform highway traffic ordinance which recently was recommended by the Hoover Conference. The purpose of the meeting was to study this ordinance and make plans for its adoption by the State of Maine during the coming legislative session.

Editorial Staff of Combined Automobile Trade Journal and Motor Age Announced

Don Blanchard has been made editor of the combined AUTOMOBILE TRADE JOURNAL AND MOTOR AGE, the first issue of which will appear on Dec. 1, 1928.

Mr. Blanchard has been editor of *Commercial Car Journal*, a publication devoted to the interests of truck dealers, for the last year and a half, and prior to that time was associated with the sales promotion department of AC Spark Plug Co., and with the Chilton Class Journal Co., as field editor, contacting both the industry and the trade.

A. V. Comings, for many years editor of *Automobile Trade Journal*, will be associated with the new publication as manager, Trade Relations Division.

Sherman Swift will be managing editor of the new publication. Technical editors will be Paul Dumas, C. Edward Packer and W. K. Toboldt.

New De Soto Dealers

HARTFORD, CONN., Sept. 21—Aaron G. Cohen, Inc., distributor of the De Soto, has appointed the following dealers as associates: The Central Garage, Stafford Springs; Moses Motor Sales, Unionville; Perkins Motor Sales, Windsor Locks; Machell Motor Sales, Manchester; Barrows & Goslee, Hockanum, and the J. B. Moran Co. of New Britain. The distributor is developing a sizable sales organization throughout the territory.

Cars Chosen As Prizes

CHARLOTTE, N. C., Sept. 24—The universal desire of the American people to own automobiles again was recognized when two daily newspapers here put on intensely competitive circulation building campaigns. In each case all but one of the numerous major prizes offered were automobiles, the total retail value of these cars being approximately \$21,000.

C. I. T. Branches Now 80

NEW YORK, Sept. 24—Commercial Investment Trust Corp. has opened local offices in Jersey City, N. J.; Greenville, S. C.; Erie, Pa.; Nashville, Tenn., and at Poughkeepsie and Utica, N. Y., thus raising the number of complete branch offices to 80. This number does not include its foreign activities. Each of these offices is a completely functioning company wholly owned by the corporation.

Charles Griffin Promoted

GREENFIELD, MASS., Sept. 25—Charles Griffin has been promoted to the post of general manager of W. S. Cassidy, Inc., Hudson and Essex dealer here and in Turners Falls. He has been with the establishment nine years.

The Automotive Calendar

SHOWS

Automotive Equipment Association, Coliseum, Chicago, Oct. 22-27.
 Baltimore, 5th Regiment Armory, Jan. 19-26.
 Boston, Mechanics Bldg., March 2-9.
 *Chicago, National, Coliseum, Jan. 26-Feb. 2.
 Cincinnati, Music Hall, Jan. 13-19.
 Cleveland, Public Auditorium, Jan. 26-Feb. 2.
 Dallas, Texas, Oct. 6-21.
 Denver, Colo., Auditorium, Feb. 11-16.
 Detroit, Convention Hall, Jan. 19-26.
 Eastern States Exposition, Springfield, Mass., Sept. 16-22.
 Kansas City, Mo., American Royal Bldg., Feb. 9-16.
 Los Angeles, Washington Park, March 2-10.
 Louisville, Ky., Armory, Jan. 21-26.
 Milwaukee, Wis., Auditorium, Jan. 12-19.

National Standard Parts Association, Cleveland Auditorium, Oct. 29-Nov. 3.
 Newark, N. J., Jan. 12-19.
 *New York, National, Grand Central Palace, Jan. 5-12.
 Peoria, Ill., Feb. 5-9.
 Philadelphia, Commercial Museum, Jan. 12-19.
 Salon, Automobile Salon, Inc., Hotel Drake, Chicago, Jan. 26-Feb. 2.
 Salon, Los Angeles Motor Car Dealers Assn., Biltmore Hotel, Oct. 17-20.
 Salon, Automobile Salon, Inc., Hotel Biltmore, Los Angeles, Feb. 9-16.
 Salon, Automobile Salon, Inc., Hotel Commodore, New York, Dec. 2-8.
 Salon, Automobile Salon, Inc., Palace Hotel, San Francisco, Feb. 23-March 2.
 San Francisco, Civic Auditorium, Jan. 26-Feb. 4.
 Springfield, Mass., Municipal Auditorium, Feb. 25-March 2.
 St. Louis, City Market Bldg., Feb. 4-9.
 Syracuse, Feb. 4-9.

Pennsylvania Automotive Association, Allentown, Pa., Oct. 15-16.
 World Motor Transport Congress, Rome, Sept. 25-29.

CONVENTIONS

Automotive Equipment Association, Coliseum, Chicago, Oct. 22-27.
 National Standard Parts Association, Hollenden Hotel, Cleveland, Oct. 29-Nov. 3.
 Ohio Council, National Automobile Dealers' Association, Hotel Gibson, Cincinnati, Sept. 13-14.

S.A.E.

Detroit, Book-Cadillac, Annual Meeting, Jan. 15-18.
 Newark, Robert Treat Hotel, Transportation Meeting, Oct. 17-19.
 New York, Annual Dinner, Hotel Astor, Jan. 10.

RACES

SalemOct. 12

*Will have special shop equipment exhibit.

Oct. 10—Marketing Annual for 1929—Motor World Wholesale.
 Nov. 17—Production and Factory Equipment Issue—Automotive Industries.

G.M. Gives Porto Rico \$5,000

NEW YORK, Sept. 22—W. D. Sullivan, managing director of the General Motors Export Co., has cabled J. C. Hitchman, general manager, Insular Motors, San Juan, Porto Rico, authority to contribute \$5,000 to the Porto Rican government for relief work. The Porto Rican personnel of General Motors has been instructed to devote itself to relief activities.

Radio Heard 12 Hours Later

NEW YORK, Sept. 22—The New York office of the General Motors Export Co. has just been notified by W. D. Hopson, General Motors branch manager at Perth, Western Australia, that on the morning of July 3 he and his family at their home in Perth listened to a radio program broadcast by the General Motors Family Party on the evening of July 2 from New York City. It was 9.30 p. m. in New York and 9.30 the following morning in Perth when the Hopsons tuned in on a program being broadcast 12,500 miles away.

Willys Office for Carolinas

CHARLOTTE, N. C., Sept. 25—Sales and distribution control headquarters for the business of the Willys-Overland Company in North Carolina and South Carolina were established here under the direction of F. M. Brown, of the company's home office at Toledo.

Fisk Rubber Net Drops

Fisk Rubber Co. and subsidiaries report a net loss of \$4,983,134 for the first six months of 1928. This loss is due primarily to write down of crude rubber inventories and crude rubber in finished goods and work in process in market valuation as of June 30.

This loss contrasts with a net profit of \$1,717,307 for the eight months ended June 30, 1927, which was equal after dividend on converted stock to 88 cents a share on outstanding common stock.

Pontiac Plans Airport

DETROIT, Sept. 23—The City of Pontiac has purchased 160 acres as the site for a municipal airport Tuesday. The purchase price was \$130,500. Steps will be taken immediately to get the property in shape and to build a hangar for the landing of airmail planes in six weeks.

Hirsch to Handle Century

SAN FRANCISCO, Sept. 22—Jay Hirsch, popular member of the automotive industry in the West, has been named as Pacific Coast distributor for the Century Tire Co. of Chicago, with this city as the central distributing point. Until a few months ago he was head of the Kenyon Rubber Co. of California.

Specializes on Doctors' Cars

ROCHESTER, N. Y., Sept. 23—P. R. Keating and William S. Groell have entered the garage business for themselves under the firm name of Keating and Groell. The new firm will specialize in Buick service and fast night work on physicians' cars.

Raney Chevrolet Chartered

WILMINGTON, N. C., Sept. 22—Raney Chevrolet Co. has been chartered to deal in automobiles with an authorized capital stock of \$50,000 and \$20,000.

Open Abbeville Auto Co.

ABBEVILLE, ALA., Sept. 21—The Abbeville Auto Co. opened here recently. The firm is owned by H. W. Owens and O. G. Hardwick.

More New Cars Sold in N.C.

RALEIGH, N. C., Sept. 24—New car sales totaling 7210 were made in North Carolina in August, as compared with 6950 sales made in July, according to tabulations just announced by Sprague Silver, director of the North Carolina automobile license bureau here. He said "North Carolina should go this year well above its best previous record, if the volume of sales for the first eight months is maintained." He estimated that the total may mount to approximately 65,000 new cars for the year.

Sells 76 Cars in July

SEATTLE, Sept. 25—To W. M. Dancy, salesman for the Sands Motor Company, Studebaker-Erskine distributor of Seattle, let loud praises be sung. In the archives of selling achievement should go his name as a champion—for he sold 76 automobiles during July.

This broke all records for a single month's business on the part of any one salesman of the company and is believed to be a record among all automobile salesmen. The best previous total monthly record (in Seattle at least) is 45 cars—made by J. E. Kinnebrew of the Sands Motor Company.

Leases New Building

MEMPHIS, TENN., Sept. 25—Jerome P. Parker-Harris Co., Packard dealer, has just leased a building at Lauderdale and Monroe Ave. formerly occupied by Moon Motors Corp.

New Delco-Remy Unit

ANDERSON, IND., Sept. 23—The Delco-Remy Corporation, employing 8900 persons in its Anderson plants, announces that another unit, a large foundry, will be ready for operation October 1.



Willys Again Adds to Plant

THIS new addition to the Willys-Overland plant at Toledo was completed in record time, necessitated by the increased Whippet and Willys-Knight production program. The new building is 840 feet long, 102 feet wide and four stories high, containing eight acres of floor space. The roof of the new structure may be used to store cars thus adding materially to the floor space of the plant which is one of the largest in the entire industry

Oil Company Takes to Air

SAN FRANCISCO, Sept. 21—The Union Oil Co. has bought three more airplanes, making four in all, to be used mainly in contacting the aviation trade on the Pacific Coast. One will fly from Seattle, one from San Francisco, one from Los Angeles and the other all over the coast.

"Shop Profits" by Duggan

DETROIT, Sept. 22—"Shop Profits" is the title of a 47-page booklet which has been written by Tom O. Duggan, merchandising service director of the National Standard Parts Association. The booklet is being printed in large quantities by the National Standard Parts Association and is being made available to various members of the association for distribution among their customers.

Mr. Duggan tells of the marked advantage to the service shop operating on the Flat Rate Plan and he produces facts and figures to show the necessity of the repair shop taking its place in the new scheme of things.

Harter Hull Adds Dealer

BALTIMORE, Sept. 21—The Harter B. Hull Co., distributor of Dodge Brothers cars and Graham Brothers trucks, has announced the opening of O'Brien-Gemmill, Inc., new associate dealer, in the southern section of the city. Phil O'Brien is president and W. Hugh Gemmill is a member of the firm. Both are well-known in the trade.

Continental Adds Air Dept.

DETROIT, Sept. 25—Continental

Motors Corp. is actively entering the field of aviation, it was revealed today when W. R. Angell, executive vice-president, announced the establishment of an aeronautical division to be headed by Robert Insley, who has resigned as assistant chief of the powerplant branch of McCook Field.

N. Y. Chevrolet Branch Moves

NEW YORK, Sept. 17—Chevrolet Motor Co. will move its salesroom on Oct. 1, from the present location at Broadway and Fifty-seventh St. to improved quarters on the corner of Broadway and Sixty-second St.

McAdams Co. at New Britain

NEW YORK, Sept. 24—J. C. McAdams Co., manufacturer of radiator shutters and locking devices, formerly located in Long Island City, have moved to New Britain, Conn.

Defiance Convention

TOLEDO, Sept. 23—District managers of Defiance Spark Plugs, Inc., recently held a sales conference here. Courtenay D. Lewis, Chicago; Frank W. Morton, Great Lakes district, and Arthur M. Grant, New York, are aiding company officers in formulating a nation-wide development program.

New Tire-Size Folder

The Northern Rubber Co., in accordance with its annual custom, has prepared an authentic and comprehensive folder on tire sizes, showing the sizes of tires required for all cars and all models over the four-year period, 1926-29 inclusive. This folder will be sent free on request.

G. M. Truck Awards \$5,000

PONTIAC, MICH., Sept. 24—Twenty winners of cash prizes totaling \$5,000 in the "Better Delivery" Letter Contest conducted by the General Motors Truck Co., were announced here today.

The judges were Walter C. Boynton, of the Automotive Daily News; Kenneth A. Moore, National Automobile Chamber of Commerce, and G. C. Schink, director of traffic, Detroit Police Department.

No letters submitted in the contest are to be made public. Inasmuch as the rules of the contest called for letters either of praise or criticism, it is felt by the General Motors Truck officials that possible embarrassment will be avoided by withholding the letters.

Gets Renewal Order

GRAND RAPIDS, Sept. 24—Hayes Body Corp. has received renewal orders for next season's requirements of Flying Cloud bodies from the Reo Motor Car Co.

W. F. Martin Leaves Romar

CHICAGO, Sept. 22—W. F. Martin, for several years president and general manager of the Romar Products Corp., manufacturers of Romar bumpers, has resigned from that company and disposed of his interests. It is announced the Romar Products Corp. will continue under the guidance of C. P. Kraft.

Mr. Martin has been elected vice-president and director in charge of sales of the Lubricating Equipment Co., manufacturers of the Leco cylinder lubricator, whose factory is located on the northwest side of Chicago.

Auburn Wins Races in Two Continents

Speedster and Cabriolet Models Take First Prizes In Foreign Events

AUBURN, IND., Sept. 21—Strictly stock Auburns, a speedster and a cabriolet model, have won first place in races in Europe and South America, against a field made up of American and foreign-made cars.

The 115 speedster was an easy victor at Athens, Greece, in the Kilometric Run, one of the annual sports events of that city. The average one-way speed was 155 kilometers an hour.

In the annual Eight-Kilometer Hill Race, which is one of the most picturesque events of the Grecian capital, the same Auburn speedster captured first place by making the distance in 9 min. and 9 sec. The road up this hill is extremely steep and turns are sharp and dangerous.

The Touring Club of Greece officially presented the drivers of the Auburn speedster with two cups and two gold medals.

At Esperanza, Sabta Fe in Argentine a strictly stock Auburn cabriolet won first place in the annual automobile races against a similar field of American and foreign-made cars.

Lift Toll From Bridge

BALTIMORE, Sept. 22—A parade in which more than 1000 decorated automobiles will take part will mark the lifting of tolls on the Havre de Grace-Perryville Bridge, over the Susquehanna River. It has been announced that the toll will be eliminated beginning Oct. 1 and on that date a large celebration will be held under the direction of Mayor Pennington, of Havre de Grace.

Wallace Lynn on Coast

CHICAGO, Sept. 25—Wallace R. Lynn with offices in San Francisco is representing the Belden Manufacturing Co. and covers the entire Pacific Coast.

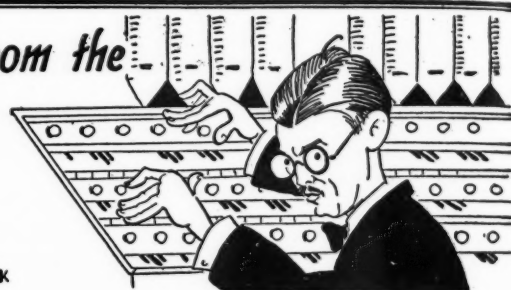
Motor Sales Opens Station

HENDERSON, N. C., Sept. 25—The Motor Sales Co., of Warrenton, N. C., agents for three counties for Oakland and Pontiac cars, have opened a sales and service station here. The Warrenton agency will be continued.

Mullins Mfg. Income Up 33 Per Cent
NEW YORK, Sept. 22—Mullins Mfg. Corp. reports net income for the month of August before taxes of \$100,640. This compares with \$75,704 for the same month last year. Income for the eight-month period ending August 31 was \$638,522, or \$5.88 a share, on common stock. This compares with \$405,962, or \$3.55 a share, for the corresponding period of 1927.

Tunes From the House Organs

GEORGE T. HOOK
AT THE CONSOLE



IN commercial competition, as in war, manpower plays a very important part. In a full-page editorial in *The Willys-Overland Starter*, the importance of this factor in the highly competitive automobile business is stressed by L. G. Peed, general sales manager.

"The problem in our business today," he writes, "is to get in contact with buyers. And for every contact a man is required. One man can make just so many contacts in the course of a day. The number of buyers we can contact, then, is determined by the number of men we have to make the contacts. Once again, it is a question of manpower. In our competition with manufacturers, in your competition with dealers, your success and ours will be determined by manpower. If the dealers with whom you compete have more men to contact buyers, they will sell more cars."

"That makes our course clear. We've got to match our competitors man for man, if we want to break even with them. If we expect to pass them, we must have greater manpower than they have."

"Put on manpower and the result of it will be reflected in your balance sheet."

We're inclined to agree with Mr. Peed if he makes his contentions with the understanding that all other things are equal. Obviously capable direction of manpower is so important a factor in automotive competition that many a firm with a handful of salesmen and an able sales manager has it all over a competitor with an army of salesmen and an inefficient general. Napoleon with inferior numbers won many a battle—and easily—from foes possessing greater manpower.

The Peerless Co-Operator seems to be of the opinion that manpower isn't everything, to wit: "Write this down in your book—any dealer will make more money out of any line, and keep on making it longer, if he has used certain priceless, intangible factors in his business to give him a rating above his competitors in efficiency and courtesy in all contacts with owners and prospects."

Anent salesmen and selling, George A. Nicol, Jr., of the Johns-Manville Corp., has the following to offer in *The J-M Circle*:

"He who sells must be convincing—yet not too much so. He must be pleasant—but should avoid false geniality. Selling is a game—and like all games must be played according to the rules. In golf you must bring to your stroke the finest rhythm, timing and the proper follow-through. Selling calls for even more careful balance—for you are playing with human nature—a game that requires all your intelligence, nerve and self-control."

"Will to do, imagination, enthusiasm, loyalty and untiring work are the greatest assets of the salesman who succeeds. Know your line—size up your prospect and tell him what (your firm) can do for him. There is no particular time or place for success. There is mighty little difference in make-up between those who win and those who whine."

In lighter mood and about the opposite sex, *The Broadcaster* of McQuay-Norris dishes out this poetical porridge: Girls when they went out to swim once dressed like Mother Hubbard; Now they have a bolder whim: They dress more like her cupboard.

An article in the Dodge Dotted Line entitled "Make the Used Car Bulletin Board a Door to Sales" furnishes a few hints that should be helpful to dealers. We quote excerpts from the article:

"A salesman in an establishment equipped with a (good-looking, attractive) board has a definite advantage over a salesman who works unaided by effective display (of used car bargains). And successful dealers make this advantage good by consistent, careful checking of the bulletin board to insure that the items listed represent cars actually in stock. When a possible purchaser enters a used car salesroom and asks to see a car listed on the bulletin board, it is essential that the car in question be on hand, and in condition to be shown and driven away."

More Warehouses For Chevrolet Co.

Building Program Planned to
Improve Service to
Owners

DETROIT, Sept. 25—The parts and service division of Chevrolet Motor Co. has been since the first of the year quietly carrying on a building program amounting to hundreds of thousands of dollars. This has added to the company's plants five zone warehouses, now in use, and calls for construction of three more before Jan. 1. In addition, major supply depots in Atlanta and Kansas City have been built and put into operation this year.

Los Angeles, Houston, Omaha, Philadelphia and Cleveland are the centers which have seen warehouses already built and opened for use. Work is to begin this fall on others in New Orleans, Fargo and Indianapolis. The New Orleans warehouse is scheduled to open in November, the Fargo warehouse in December and the Indianapolis warehouse in January.

The warehouses and depots carry several hundreds of thousands of dollars' worth of stock, and represent, therefore, a very important factor in the commercial life of the communities in which they are located, Mr. Little, manager of the parts and service division, said.

Aside from the building activity, the divisional program for 1928, as outlined by Mr. Little, is also concerned with Boston and Denver, cities where now existent warehouses will be vacated this fall for new quarters because present facilities have proved inadequate. Thus before the year closes the parts and service division will have new warehouses in each of 10 cities.

In every instance between 5000 and 6000 sq. ft. of space has been set aside in these warehouses for use of the zone sales schools. The warehouses also house the offices of the zones sales managers and their staffs. All of the new buildings have been built according to plans and specifications of Chevrolet Motor Co.

With this year's additions the total number of Chevrolet zone warehouses will be increased to 20. Other cities in which they are located are Baltimore, Pittsburgh, Charlotte, S. C.; Jacksonville, Fla.; Des Moines, Iowa; Minneapolis, Minn.; Memphis, Tenn.; Dallas, Tex.; Oklahoma City; Denver, Portland, Ore.

Marmon Motor Co. Net

Marmon Motor Car Co. reports net earnings in the first six months of 1928 of \$1,288,598 after all charges but before Federal taxes. This compares with earnings of \$1,239,532 in the full year ended June 30, 1927. The company reports unfilled orders the greatest in its history for mid-year operations.

Wholesale Head



J. H. Dutch

THE gentleman with the quizzical smile was recently made wholesale head of Richards - Oakland, Detroit. When you read the news in last week's MOTOR AGE, you doubtless wondered how he looked—here's how.

Distributor is Broadcaster

CHARLOTTE, Sept. 24—Though he has the biggest automobile distributing business in the prosperous Carolina territory, C. C. Coddington, of Charlotte, head of C. C. Coddington, Inc., Buick distributor and president of the National Automobile Dealers' Association, takes time to play around with radio. He is the owner of broadcasting station WBT. The very expensive equipment he had atop of his five-story building here has been outgrown, and Mr. Coddington has invested another \$100,000 in a new station, located about ten miles from this city. The studio remains in the Coddington building, which is connected with the broadcasting station by a direct wire and by another direct wire over which come for broadcasting here the programs put out by one of the nation's greatest networks.

Wholesaler Aids Government

CHARLOTTE, N. C., Sept. 25—Two purposes now are being served, instead of one as in the past, by the study that is being given to the problems of distribution by Joseph G. FitzSimons, of Charlotte, head of the Carolinas Auto Supply House. Mr. FitzSimons recently was appointed to membership on the United States Chamber of Commerce's committee to seek means of facilitating distribution and to assist the Federal government in making studies of distribution problems.

Willys Net Earnings

For the first six months of this year Willys-Overland had net earnings, after deductions for Federal taxes but before stock requirements, of \$5,641,517.27. After preferred stock dividends the earning rate was \$2.01 per share on the common stock.

Short Month Lowers Output

Higher Curtailment Seen But
Average Is 60 Per
Cent Up

NEW YORK, Sept. 19—From present indications, this month's production of automotive vehicles will fall under the August level, but the principal reason is the fewer number of working days. The large producers, in the main, have kept output up to the best figures of last month. A slight tendency to curtailment is currently observable, but the general level is at least 60 per cent over the corresponding period of a year ago.

Both foreign and domestic demand has accounted for the strong production of recent months, and continues to be above normal for the season. Whether the industry will experience the sharp reduction in activity that has characterized the closing months of the last two years remains to be seen, but the fact that Ford will be increasing output for some months to come is a guaranty that the early winter months will maintain a good ratio of increase over last year's marks.

Heavy orders are still being placed for automotive parts and raw materials. Some of the manufacturers of original equipment are actually behind on orders, an unusual condition at this time of year. The original equipment group of companies, as a whole, has fared very well in 1928, fairly stable prices having accompanied the larger volume of business.

Wins Golf Tournament

HARTFORD, Sept. 21—D. A. Harrington, treasurer of the Harrington Hudson Co., distributor of the Hudson and Essex, carried off the high honors in the golf tournament of the Hartford Automobile Dealers Association held at the Wanapnaug Country Club today. Harrington had a gross score of 87 for the tough 18-hole course.

Russell P. Taber, president of Russell P. Taber, Inc., distributor of the Reo, and F. W. Williams, president of F. W. Williams, Inc., distributor of the Locomobile and Durant, were high men in the money class.

Following the tournament there was a dinner and meeting in the club house. This was the first tournament held under the auspices of the association this season.

G.M. Stockholders Increase

NEW YORK, Sept. 19—Stockholders of General Motors Corp., including both common and preferred stock, for the third quarter of 1928 number 71,682 as compared with 70,399 in the previous quarter. This also compares with 57,190 for the corresponding quarter of 1927.

Meeting of G.M. Heads Planned

Foreign Representatives
Called for Meeting in
United States

NEW YORK, Sept. 24—J. D. Mooney, president of the General Motors Export Co., today issued a call for a regional and managing directors' conference to be held in the United States beginning May 22, 1929.

Executive heads of all the overseas assembly plants and warehouse operations of General Motors will attend a week's conference to be held at Shawnee-on-Delaware, will visit each of the General Motors automobile, truck and body factories in Detroit, Flint, Pontiac, Lansing, Oshawa, the research laboratories at Detroit and the proving ground at Milford, Mich. Twenty-six delegates will attend from Europe, South America, the Far East and the Caribbean.

Gardner Exports Up 94 Per Cent

ST. LOUIS, Sept. 24—Export orders of Gardner cars for the month of August showed one of the largest increases for a summer season in the history of the company, according to T. F. Fowler, director of exports of the Gardner Motor Co., Inc. An analysis of the export situation for August shows an increase in exports of 90 per cent over those of August, 1927.

Vehicle Conference in Cal.

SAN FRANCISCO, Sept. 21—More than two score amendments to the California motor vehicle act, designed to increase safety and facilitate traffic, were offered by delegates to the recent Motor Vehicle Conference of California, held here. The proposed changes in the law were referred to the conference's executive committee, which will make recommendations to another meeting of the conference late in September.

Edmund Burke Advanced

SIOUX CITY, IOWA, Sept. 21—Edmund Burke, manager of the local branch of the International Harvester Company, has been transferred to New York City as director of motor truck sales there.

G.M. Export Sailings

NEW YORK, Sept. 21—R. K. Evans, regional director for the General Motors Export Company in Europe, sailed September 15 on S. S. Leviathan, returning to his headquarters at London, following a month's business visit in New York and Detroit.

W. de Schrivner, accompanied by his family, will sail September 22 on the S. S. Southern Cross for Sao Paulo, Brazil, where he will be connected with the parts department of General Motors of Brazil, S. A. He formerly was at-

tached to the New York office of General Motors Export Company.

W. H. S. Richardson sailed September 15 on the S. S. Hamburg for Port Elizabeth, South Africa, via Southampton. He will be construction engineer attached to G.M. South Africa, Ltd.

Jose Rivera, assistant sales manager of General Motors Peninsular S. A., Madrid, sailed September 12 on the S. S. President Roosevelt after a visit to the home of the General Motors Export Company in New York and a trip to General Motors operations at Detroit.

Place 150 Plane Order

NEW YORK, Sept. 22—Curtiss Flying Service, Inc., recently organized to conduct air passenger service between various cities and to act as sales agent for the Curtiss Aeroplane & Motor Co., has placed an initial order for 150 airplanes of various types to involve an expenditure of approximately \$2,000,000, according to announcement made by C. M. Keys, chairman of the board of directors. This is reported to be the largest private contract ever placed in the United States.

Officers of the company are now negotiating for the acquisition of flying fields, either by purchase or lease, in the key cities of the country. Of these, 25 such fields will be operated at the start, each of which will house a complete training school for aviators and a sales and service station.

Moiles Joins Metropolitan Trust

DETROIT, Sept. 21—Stanley B. Moiles, assistant industrial engineer at the Briggs Manufacturing Company for the past five years and associated with the automotive industry for 15 years, has joined the new business department of the Metropolitan Trust Company.

Oakland-Pontiac Men Visit Plant

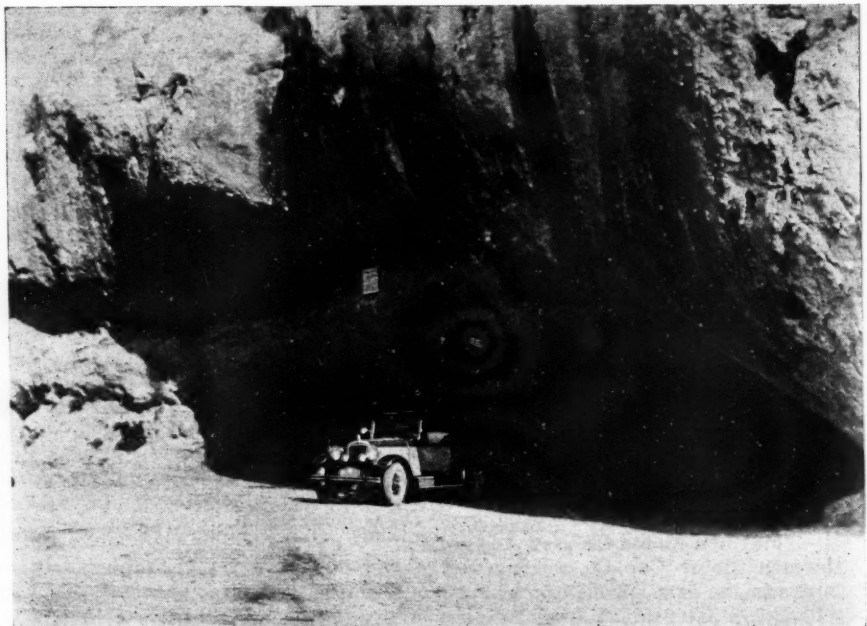
165 Milwaukee Dealers Arrive
on Special Train for
Inspection Tour

DETROIT, Sept. 21—A party of 165 Oakland-Pontiac dealers from the Milwaukee sales district made a trip on a special train this week to Pontiac, where they are spending two days visiting the various plants of the Oakland Motor Car Co.

Monday was given over to an inspection tour of the plants of the Oakland Motor Car Co. and the Fisher Body Corp. The party also visited the General Motors proving ground, followed by dinner at the Old Mill Tavern. Speakers were E. N. Lubeck, toastmaster; R. A. Armstrong, H. H. Higgenbottom, R. N. Hamilton, W. H. Shaffner, M. L. Buck, and W. M. Chamberlin. The sessions closed Tuesday night with a dinner at the Book-Cadillac Hotel in Detroit. On this occasion M. E. Mahaffey presided as toastmaster and addresses were made by Gordon Lefebvre, vice-president in charge of manufacturing; Benjamin Anibal, vice-president in charge of engineering; W. R. Tracy, vice-president in charge of sales, and A. R. Glancy, president and general manager.

Waukesha Pays Dividends

Waukesha Motor Co. has declared regular quarterly dividend of 62½ cents and an extra dividend of \$1, both payable October 1 to holders of record September 15.



An Underground Garage

THIS garage, built by nature, will store hundreds of cars and all in all it looks like a paying piece of property, despite the possibility of a crushing overhead

Mellon Reports Good Outlook

According to Report Better
Business May Come
With Election

WASHINGTON, Sept. 20—Business in the United States is on a sound and satisfactory basis, the national business outlook is satisfactory, and business conditions today contain no factors that warrant pessimism as to the next six months, in the opinion of Secretary of Treasury Andrew W. Mellon, who announced he has reported in this tenor to the President.

In fact, according to Secretary Mellon, conditions which now appear likely to continue should produce increased income to business and therefore greater tax revenues for the government, and the possibility looms, in the view of the Secretary, that a threatened deficit in the government's finances may not materialize.

Mr. Mellon insists that no one can look into the future with certainty but he believes that the theory of bad business conditions during a national election year is a fallacy. An actual business boom developed during the campaign of President Garfield, he said, citing this as an illustration.

Tire Man Lines Up Wheels

CHARLOTTE, N. C., Sept. 24—H. D. Horton, president of Horton, Inc., has partially entered the field of automobile repairs in order to assure his customers more mileage from their tires. Mr. Horton has installed in his service station all the equipment necessary to determine when wheels are out of line, and if the cause rests in the chassis or bearings.

"The successful tire dealer of today must be more than a salesman," said Mr. Horton, who is a director of the National Tire Dealers' Association. "He must be also a merchant and a mechanic. When he is good in all three respects, his business will be financially successful."

Will Distribute De Soto

MINNEAPOLIS, MINN., Sept. 23—Ode'l Sales Corp. has been appointed to distribute De Soto cars here. D. A. Odell is president, W. D. Prouty is manager of sales.

\$6,370,649 Licence Receipts

OLYMPIA, WASH., Sept. 25—Receipts from the sale of automobile licenses in the State of Washington for the period beginning Dec. 1, 1927 and ending Aug. 31st, 1928 amounted to \$6,370,649 or \$287,012 more than the total receipts for 1927, according to the report of the state treasurer. Receipts for August of this year amounted to \$165,511.

King County leads with \$1,840,205. Dealers licenses sold amounted to \$85,-

Ford Canada Plant Abreast of Orders; Has Built 48,000

FORD MOTOR CO. of Canada, Ltd., built 13,045 cars and trucks in August, bringing the total production of the Model A in Canada to date to about 48,000. The company is nearly caught up with orders and dealers are able to give immediate deliveries on some models and others within a few days. The company reports the receipt of orders continuing in large volume. The company is shipping about 30 per cent of its current production abroad.

416; duplicate licenses, \$202 and new plates \$16 making the total of \$6,370,649.

Stewart-Warner Dividend

Stewart-Warner Speedometer Corp. reports net income for the six months ended June 30 after all charges as \$3,613,334. This is equivalent to \$6.02 a share and compares with \$2,570,926, or \$4.28 a share, for the corresponding period a year ago. Income for the quarter ended June 30 was \$2,226,050 as compared with \$1,508,878 for the corresponding quarter of last year.

A. C. Williams Heads Olds Branch

ST. LOUIS, Sept. 24—A. C. Williams, formerly of Lansing, Mich., has been appointed manager of the Olds Motor Works branch here to succeed R. L. Samuel, who becomes manager of the Olds Buffalo branch. Samuel was guest of honor at a farewell dinner and was presented with golf sticks and bag by employees of the Olds branch.

Heads Oakland Zone

ST. LOUIS, Sept. 22—Ross D. Williams, formerly of Chicago, has been appointed manager of the St. Louis district for the Oakland Motor Car Co. He was formerly assistant manager at Chicago. William succeeds C. L. Voss, who becomes manager of the Chicago branch. Williams has been with Oakland since 1919 and opened the Des Moines, Ia., branch for the company.

Marmon Net Earnings

Marmon Motor Car Co. reports net earnings for the first six months of the current year as \$1,288,598 after depreciation and all other charges but before federal income tax.

Extra Reo Dividend

Reo Motor Car Co. has declared an extra dividend of three per cent in addition to the regular quarterly dividend of two per cent. These represent a disbursement of \$1,000,000 for the quarter and are payable October 1 to stock of record September 10.

General Motors Sales Advance

Alfred P. Sloan, Jr., Tells of
Consistent Increase
in Business

NEW YORK, Sept. 25—General Motors dealers sold 187,465 cars at retail during August, according to announcement made by Alfred P. Sloan, Jr., president of the corporation. This compares with 158,619 cars for the corresponding month last year, a gain of 18.2 per cent, and with 177,728 for July of this year.

Sales of General Motors divisions to dealers for the month of August totaled 186,653 cars as compared with 155,604 for the same month in 1927, a gain of 20 per cent, and with 169,473 for July of this year.

Comparative tables for the first eight months of the current year with the corresponding periods of last year follow:

| Dealers' Sales to Consumers | 1928 | 1927 |
|-----------------------------|---------|---------|
| January | 107,278 | 81,010 |
| February | 132,029 | 102,025 |
| March | 183,706 | 146,275 |
| April | 209,367 | 180,106 |
| May | 224,094 | 171,364 |
| June | 206,259 | 159,701 |
| July | 177,728 | 134,749 |
| August | 187,463 | 158,619 |

Universal Credit Expands

DETROIT, Sept. 22—Universal Credit Company will expand its activities rapidly during the remainder of the year. The company opened its Detroit office June 1 and a branch in Kansas City on June 25. By Sept. 1 the company purchased more than a million dollars worth of Ford time sale transactions for these two districts. The next branches of the credit company to be opened will be in New York, Chicago, Boston and Atlanta.

Ford Production Up Abroad

DETROIT, Sept. 21—Production of the new Ford car in foreign plants is being materially increased, according to the Ford Motor Company. Besides plants at Manchester, England, Antwerp, Belgium and Barcelona, Spain, which have been in operation for several months, the assembly plant near Berlin-Plotzensee, Germany, operated by the Ford Motor Company A. G., began operations in August and plant at Sao Paulo, Brazil, is opening this month. Present plans also include the starting of assembling at the Yokohama, Japan, plant some time during September.

Graham-Paige Dividend

Graham-Paige Motors Corp. has declared quarterly dividend of 1½ per cent on first preferred stock, payable October 1 to holders of record September 15.

Studebaker Shows Steady Increase

Each Month of the Last 12
Shows Greater Business
Than Previous One

SOUTH BEND, Sept. 25—A 12-month period in which each month showed an increase in sales over the corresponding month of the previous year has just been completed by the Studebaker Corp. of America. Retail deliveries by dealers during August were 19 per cent greater than August, 1927.

During the 12-month period of sales gains, Studebaker cars have also won more official speed and endurance records for fully equipped stock cars than all other makes of cars combined. A total of 114 records, all made under sanction and supervision of the American Automobile Association, are now held by Studebaker.

Lincoln Dealer Plan

LOUISVILLE, KY., Sept. 24—The Greater Louisville holders of Ford dealerships have formed the Consolidated Motors Co., Inc., with a capital of \$50,000, and liability limit of \$500,000, for the purpose of taking over the Lincoln automotive dealership in the Falls Cities, which had previously been exclusively handled by the George Cole Motor Co.

Each of the Ford dealers will become financially interested in the new Consolidated Motors Co.

The Summers-Hermann Co., Monarch Auto Co., Louisville Motors Co., Universal Car Co., Ditto-Hartsell Co., St. Helens Motor Co. and the Korte-Smith Motor Co. of New Albany, Ind., which also controls the Ford agency in Jeffersonville, Ind., will all hold stock in the new company.

George Cole becomes chairman of the board of directors of the new company. Turner Summers is president; Raymond Korte, first vice-president, and W. G. Giles, secretary-treasurer.

Detroit Bus Lines Merge

DETROIT, Sept. 23—Incorporation papers for eastern Michigan motor buses has been filed with the Michigan Secretary of State. The company will issue 200,000 shares, no par value, and has been organized to take over the various bus lines operated heretofore by the Detroit United Railway.

Giles President Monarch Auto

LOUISVILLE, KY., Sept. 24—As a result of the recent death of C. S. Potter, president of the Monarch Auto Co. of Louisville, and affiliated companies, W. G. Giles, who was secretary-treasurer of the company, becomes president of the Monarch Auto Co., and its affiliations. W. L. Kennett continues as vice-president.



By Louis C. Dibble

F. E. MOSKOVICS announces new Stutz models that are a wow. More power under the hood and many little refinements in appearance are outstanding features of the fine new cars.

Speaking of prosperity, Olds Motor Works, as though it were not yet large enough, has acquired five acres of land adjacent to its main factory. No definite plans have been made for the use of the land, but it will be cleared of all buildings and enclosed within the main holdings.

R. H. GRANT is off on another of his business inspection trips. This time Chevrolet's well-known vice-president in charge of sales is headed for points South and with him are H. J. Klingler, general sales manager, and J. E. Little, parts and service manager.

For the past 19 years Harry A. Kaufman has been making a name for himself in the truck field and now his friends are congratulating him upon his appointment as general sales manager of the Fargo Motor Corp., the new commercial vehicle division of the Chrysler corporation.

The Oakland Motor Car Co. is expanding its fleet department, says W. L. Schaffner, manager of the department. No doubt this means a couple of admirals will soon be added to the fleet.

Directors of Hupp Motor Corp. met the other day and made a number of well deserved promotions. Among those who climbed up a notch on the Hupmobile ladder were R. S. Cole, W. S. Graham, Ralph Lyons and George E. Roehm.

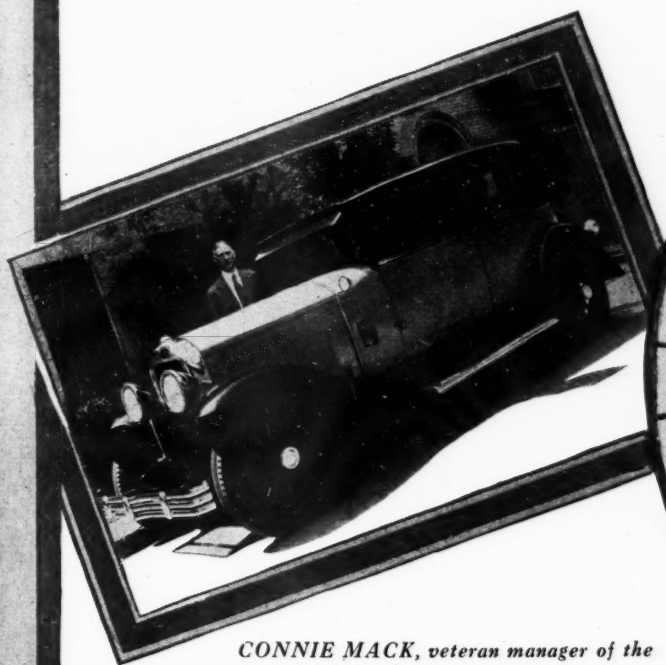
In keeping with all the bearish movements in the stock market of late, E. T. Strong, president of Buick, cut a melon the other day. Matter of fact, it weighed 100 lb., and was of the watermelon variety. It was sent to him by Webb and North, Buick dealers in Fort Worth, with the following inscription: "When bigger watermelons are grown Texas will grow them."

Ab Jenkins and Ralph Hepborn, two nationally known racing drivers, recently left South Bend, Ind., the home of the Studebaker Corp., on a long trek that will take them to the farthestmost sections of the country. They are driving the President eight roadsters that recently did 30,000 miles each in 26,326 and 26,329 consecutive minutes respectively, at the Atlantic City Speedway. That's endurance.

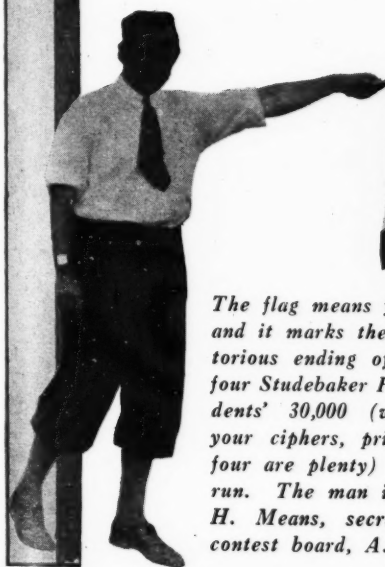
The AC Spark Plug Co. is rounding out its twentieth anniversary this month. Organized in Flint on a very small scale by the late Albert Champion, the company has grown until today it is not only one of the largest producers of spark plugs but also manufactures many units which go into the modern motor car, including oil filters, air cleaners, speedometers, heat indicators, ammeters, instrument panels for both motor cars and motor boats, and Faience tile, which is used by the building industry. May the next 20 years be as productive—and of course they will be.

Hodge Podge

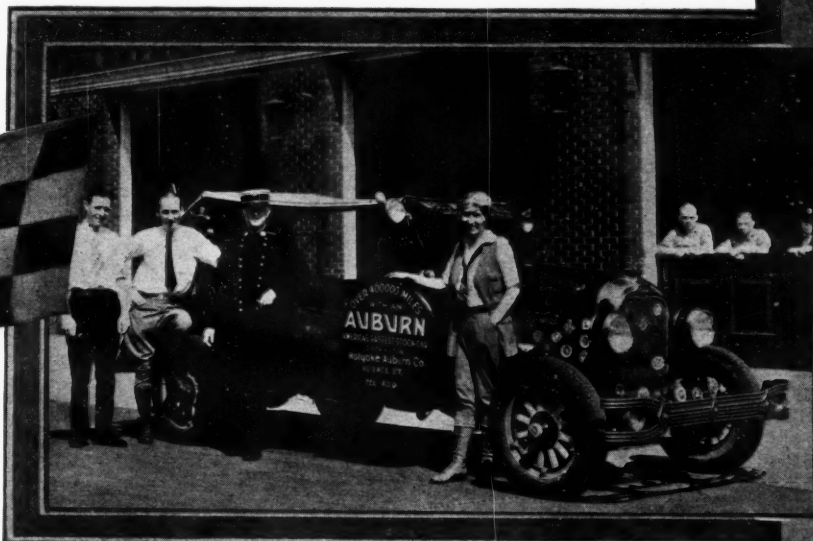
CHARLIE HUBER, Pomeroy, Ohio, built this high wheeler in a blacksmith shop 40 years ago. This type of bike was the dernier cri (French for cat's pajamas) back when tires were sold by the yard.



CONNIE MACK, veteran manager of the Philadelphia Athletics, and his Silver Anniversary Buick. He's chasing the pennant. Good luck, Connie.



The flag means finish and it marks the victorious ending of the four Studebaker Presidents' 30,000 (watch your ciphers, printer, four are plenty) mile run. The man is A. H. Means, secretary contest board, A.A.A.



Here's a record-breaker, Nell Wonderwell. The name should be Wanderwell, changing the "o" to "a." She's globe-trotted 402,976 miles and worn out—how many speedometers is it you've worn out, Miss Wonderwell?

Common Sense of an

IN this highly competitive business age of ours where the successful man is supposed to be a specialist before he can cross the line marked "success," it is refreshing to find proof that good, plain common sense is still just as capable of landing a man at the top of the ladder as it ever was.

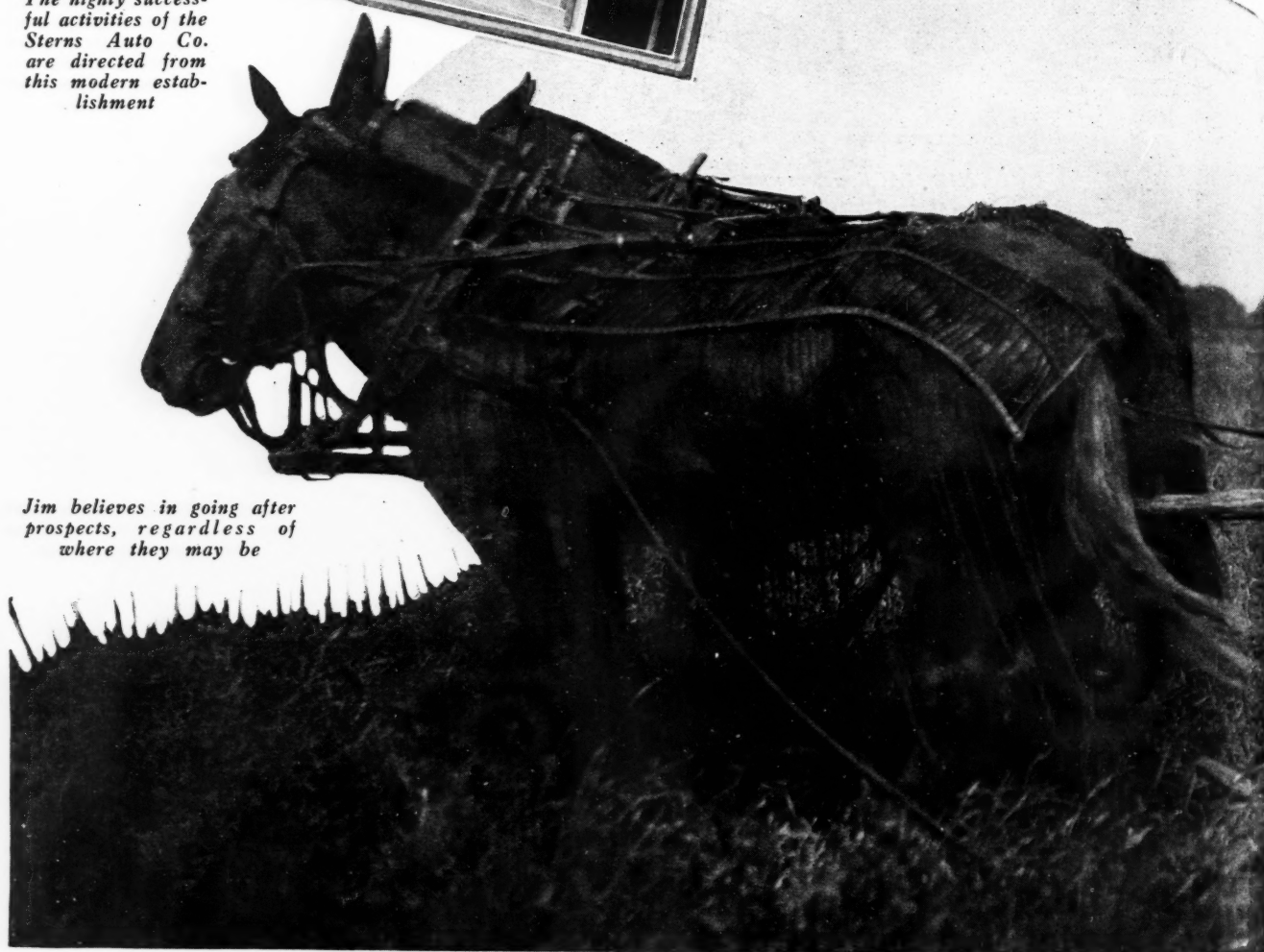
Out at Hiawatha, Kansas, a farming community of 3202 persons, the Sterns Auto Co., Studebaker dealer for 19 years, has been demonstrating, year in and year out, that good common sense is not only an important asset in conducting an automobile dealership, but a profitable one.

The firm was founded 19 years ago by John Sterns. Sterns has since retired and his son Jim is carrying on.



The highly successful activities of the Sterns Auto Co. are directed from this modern establishment

Jim believes in going after prospects, regardless of where they may be



Uncommon *Kind*

*Plain and Practical Jim Sterns
Succeeds by Plain and
Practical Methods*

By JAMES C. GRANT

The younger Sterns is the type of business man best described as plain and practical. He is open to progressive ideas, but insists that each stand on its own merits. If it can't it is discarded—in a hurry.

Common sense—there is no other way to express it—governs Jim's actions. It tells him to continually canvass the farmer, to watch his used car stock, to secure his used cars at a price that will bring him a profit, to see that his customers are given fair treatment, to sell his new car rather than buy the prospect's old car.

The day that this article was written, Jim and his salesmen sold four cars. Not a bad business to do in a community built around a town of 3202 persons.

As an example of how he conducts his business there is his used car department. Used cars are not permitted
(Continued on page 36)

*This is Jim Sterns, who is proving
that good common sense is just as pro-
ductive of success today as it ever was*



The BOSS Takes a

—and the RED-HOT Service Station COOLS Off

By Louise Crowe Wetzel

RED-HOT SERVICE" read the sign on the big building. "Red-Hot Service Station" emblazoned on the plate glass windows.

The time was 9.00 a. m. The place, a busy thoroughfare on the outer fringe of the city. The big man, eyes half-closed, sat in a cane-bottomed chair, tilted back into the shade of the building. The day was warm; a little later and the Sunday parade of cars would start. The big man was enjoying his rest while he could.

In stately array before his unseeing eyes stood the gas pumps, eight of them, dispensers of nearly as many different brands of gasoline, at as many different shades in price. Out of line from the gas tanks, but as easily accessible was the air and water tower.

The building was a modern one, attractive in design. The latest in accessories, the most highly advertised tires and tubes were tastefully displayed behind the plate glass. In the shop the newest in garage equipment, the greatest time-saving devices were to be seen. The owner of this service station had been to a great deal of expense to catch the public eye. And situated as it was, at the intersection of two main highways, catch the eye it did.

A long, low, racy roadster swung around the corner, hesitated, came to a stop beside the air pump. The big man half arose from his chair, the near-triumph of discipline over matter, but he sank back. A lithe gentleman in immaculate flannels sprang from the roadster. He glanced questioningly at the attendant, then proceeded to help himself to air. Evidently the man had a long drive before him and wanted no further stops. There was the hiss-hiss of the air as the hose was pulled from one sufficiently inflated tire and moved to the next.

Again the man glanced at the attendant, but sweet oblivion had claimed him, his big bulk incongruous with the lifeless droop of his head and the small tilted back chair. So the gentleman grasped the hose and helped himself to water. As he drove away the attendant aroused, bemused, to murmur a sleepy "Thanks, boss."

A coupe of shining newness piloted by a titian haired beauty, rounded the corner. Big violet eyes swept the scene, the idle pumps, the slumbering attendant.

"Well, I'll never—," an imperious hand was lifted to tap the horn, instead the dimpled chin came up

with a jerk. Before the older woman could remonstrate, she was out of the car, wrestling with the air line. There must be a whole lot more to these things than she had supposed; she jerked and tugged and at last it came free. Timorously she fitted it to the valve of a rear tire. She didn't want to overdo the thing, just to uphold her independence, so she decided to let the others ride. A grinding of gears, and she was gone.

Lazily the attendant opened his eyes, closed them again with precision. "Just a pretty doll. Didn't miss no tip there."

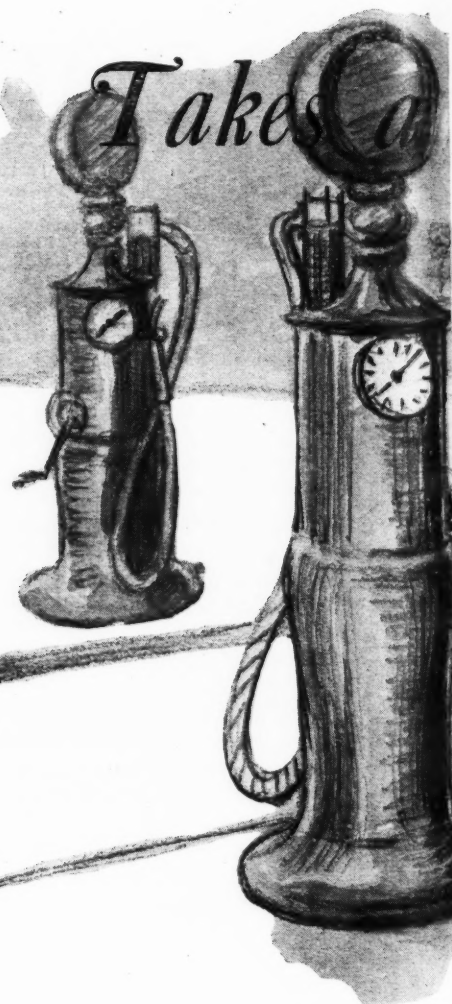
Three staccato honks of a horn. "Yessir. Excuse me. Didn't know you was there." He lumbered over to the touring car drawn up to a tank of higher grade gasoline. "You'll have to back up a bit, boss. Hose won't reach. Whoa, hold it now; this one'll reach." And five gallons of a cheaper grade were put into the tank.

The rush was on. No more sleeping in the sun for the big attendant today. The cash register kept up a continuous jangle and the different grades of fuel were dispensed with alacrity.

"Five?" asked the attendant, "Five?" until one supposed it was the only question permitted. Never once, "Fill 'er up?"

A bus of ancient vintage pulled up. Tall and clumsy it towered amongst its more recent brethren, battle scarred and time worn, its remaining paint of a nondescript hue. The dusty license plate bore the name of a distant state.

"Five?" came the laconic query.





*"Just a pretty doll," said
the attendant. "Didn't
miss no tip there"*

"See how much it'll hold," said the driver. "No gage on this baby."

And so his five was doled out to him. The old car couldn't have taken more than two or three extra anyway. Five was the average, why sell seven or eight?

"See about the oil," commanded the tourist. The attendant lifted the hood on the right side. "The left side, the left side," prompted the man.

"At'll be all, boss. You don't need no oil." He had not lifted the left side, so by what method of prognostication this was determined remains to be seen.

The tourist was on his way, growling about "these damn garage attendants."

Two tires were badly shot on the old car. Certainly, he would purchase two or more before the return trip. It should have been an easy matter to sell him one, doubtless two or more while the car was at the station, but no one made the effort.

The longer one watched the procession the greater grew one's wonder and amazement. "Water?

Oil?" These questions were never asked. An effort to sell some of the accessories so prominently displayed? Not one! The cars stopped at the gas tanks, and gas was what they got. Well-bred were these garage and service boys, and not of an inquiring mind. They asked no questions, nor offered to peer into a strange car's "innards."

How was it that so many stopped here, and how many of them would stop again? Why the extravagant show of accessories and no effort made to sell them? Was it possible there was only one of each item, and the proprietor wanted to keep an assortment? Why the competent looking corps of mechanics and no endeavor to sell service? Whence had come the capital for this outlay and how long could it continue in operation? Above all, where was the proprietor, and what manner of man was he, to let his business slide in this fashion?

One square down the street, sandwiched in between
(Turn to page 33, please)

Bay State Insurance Laws Muddled

Another Boston Tea Party Looms as Controversy Over Compulsory Liability Comes to Head With Move to Increase Rates

AFTER 20 months of troubled operation, the Massachusetts compulsory automobile liability insurance law is facing its most critical period. Under pressure from his own Republican colleagues, the commissioner of insurance has resigned; the rate situation is in chaos and the certainty of a number of lawsuits is faced, while the stage is being set at the forthcoming session of the legislature for a struggle over bills to repeal the law and others to change completely the manner of its functioning.

The uproar in Massachusetts, involving State officials, insurance companies, members of the bar, automobile dealers and owners, as well as the public generally, comes at a particularly important time, since the approaching legislative season for other states has been expected to be widely productive of proposals for compulsory insurance based more or less on the Bay State precedent.

Out of the welter of facts and opinions, which will probably not be clarified and brought into order for months, one conclusion may fairly be drawn—that those who have contended that more experience with, and study of, the plan for compulsory insurance are necessary before its general adoption is feasible have been thoroughly vindicated. Just now in Massachusetts, opinion on the subject is probably more widely divergent than at any time since the proposal first was broached.

The events leading to the present impasses may be set down in roughly chronological order as follows:

Acting in accordance with the law, Wesley E. Monk, the insurance commissioner, prepared a new schedule of rates for 1929, involving major increases in the Boston area, ranging as high as 100 per cent in some classifications. Rates elsewhere were unchanged or reduced somewhat.

This action touched off the explosion. In all the ensuing flare-up of opposition, however, there has been little or no disposition to charge that the commissioner was not performing his duty. He was obligated to insure a fair return on their investment

to the insurance companies, and on the basis of the available figures, a rate increase appeared to be in order. It is true that the figures are those of the insurance companies, but no means have been set up for determining independently the accuracy of the report.

Increase is Blocked

Attorney General Warner, Lieut. Governor Allen, Governor Fuller and others protested Commissioner Monk's action, and he resigned without filing the new schedule, which automatically leaves the old rates in effect. Thereupon the insurance companies began to devise legal means for an appeal, and one important underwriter, the New York Indemnity Co., announced its withdrawal from the Massachusetts field with the following telegram to the acting insurance commissioner, Arthur E. Linnell:

"We advise you that because of the inadequacy of rates for compulsory automobile liability insurance in Massachusetts resulting in a net loss to this company estimated between \$100,000 and \$200,000 for this year, we have instructed our Massachusetts representatives to forthwith discontinue such business."

Jeffries Harding, the Boston representative, immediately notified Motor Vehicle Registrar George A. Parker, as the law provides for this. The company has about 150 agents writing automobile liability insurance in Massachusetts. A checkup of the company's finances on file at the State House shows that in 1927 it received \$206,000 from this type of insurance and paid out actually \$124,900. Outstanding claims are not given.

Assistant Attorney General Roger Clapp said that the insurance companies had the right to stop writing this kind of insurance or to withdraw from any particular field and that there was no law to compel them to write compulsory automobile policies although they engaged in other lines.

The position of the State officials who have opposed an increase in rates has been set forth
(Turn to page 38)



An attempt to increase the insurance rates has been blocked by the protests of Governor Fuller and other State officials

Tarbill Again Heads Ohio Council

N. A. D. A. Group Also Reelects Peckham and Griffith. Adds to Directorate

By DONALD BLANCHARD

KEEP used car dollars below 35 per cent of new car dollars. This was one of the outstanding points made by J. W. Loranger, supervisor of districts, Packard Motor Car Co., who was one of the featured speakers at the fourth annual convention of the Ohio Council of the National Automobile Dealers Association, held in Cincinnati, Sept. 13 and 14. The importance of watching the ratio of used car to new car business also was emphasized by C. A. Vane, general manager of the N.A.D.A., who said that analyses made by his organization indicated that 25 per cent was the limit if 5 per cent profit was to be earned, and that if the ratio exceeded 40 per cent, there was no chance of any net.

Other subjects discussed at the meeting included scrapping plans, salesmanship, the importance of the after-market and legislative matters. J. W. Tarbill, Cincinnati Packard, was reelected chairman of the Council and C. G. Peckham, Buick, Cleveland, and Warren Griffith, Chrysler, Toledo, were reelected to the board of directors. It was also voted to increase the directorate from 9 to 25. The second day of the convention was devoted to a golf tournament at the Hyde Park Country Club. The intercity tournament cup was won by the Cincinnati dealers.

The dealer who works is almost in a position to pick his account because of the importance of retail outlets to the manufacturer at the present time, according to George M. Graham, vice-president of Willys-Overland, Inc., who addressed the convention banquet. Mr. Graham's topic was the major trends of the industry and among those he mentioned were mergers, the Ford situation, body design and new model announcements. In regard to Ford he said that by 1929 the Ford factories will be in a position to produce at capacity and Mr. Graham expects that the effect of this competition will be felt by all



J. W. Tarbill

Packard distributor, Cincinnati, reelected chairman, Ohio Council, National Automobile Dealers Association. Mr. Tarbill is also a director of the association

cars selling at less than \$1,000.

The right time to announce new models is receiving much consideration at the present time, Mr. Graham said, and he believes that sentiment is crystallizing in favor of introducing new lines at or shortly before the New York Show. He also said that the practice of protecting dealers on their stocks at the time of new model announcements and of price reductions, would become more general.

Profits earned by Packard distributors during the last three years have shown a steady increase despite the intensified competition. Mr. Loranger cited this fact to show the results of the work Packard has done on the used car problem, which work formed the background for his talk.

Nationally there is no gross profit in used cars and consequently, Mr. Loranger pointed out, it is important to hold down the amount of business of this character handled. He said this could be accomplished by directing sales effort toward keeping the average initial trade-in at a low figure so

that used cars taken in trade on new ones could be sold without accepting a second trade-in as part payment. The experience of the Packard organization indicates that this is a practical policy to follow.

Because from 75 to 80 per cent of the cost of selling automobiles depends on the volume of business, volume obtained by excessive used car allowances would not produce profits, according to Mr. Loranger. He said that it was unsound to proceed on the theory that twice the volume could be handled at the same expense. Salesmen's commissions, advertising, policy service, delivery expense, etc., all increase with volume, as do such items of fixed expense as interest, insurance and rent.

A sales demonstration of unusual interest and val-

(Continued on page 36)

Chrysler Announces Fargo Line

Light Truck Models Are Forerunners of Complete Series

RUMORS that the Chrysler Corp. would actively enter the truck field have been substantiated with the announcement that the "Fargo" would shortly be introduced by that concern. Offered in both $\frac{1}{2}$ and $\frac{3}{4}$ -ton sizes, powered with a four-cylinder and six-cylinder engine respectively, these models are the forerunners of a complete line of trucks which will eventually be marketed by the Fargo Motor Corp., a newly formed division of the Chrysler Corp., with H. A. Kauffman, formerly of Graham Brothers, as sales manager.

The Fargo sales organization will consist of dealers and sub-dealers, recruited from both the passenger car and truck fields. In some cases, the sales will, therefore, be handled by Chrysler dealers, in some by the De Soto organization and in other cases by separate dealers from trucks alone. Following are the prices of the Fargo delivery line:

| | Packet 4-cyl. $\frac{1}{2}$ -ton | Clipper 6-cyl. $\frac{3}{4}$ -ton |
|----------------------|----------------------------------------|-----------------------------------------|
| Chassis | \$545 | \$ 725 |
| Panel body | 795 | 975 |
| Glass side body..... | 895 | 1,075 |

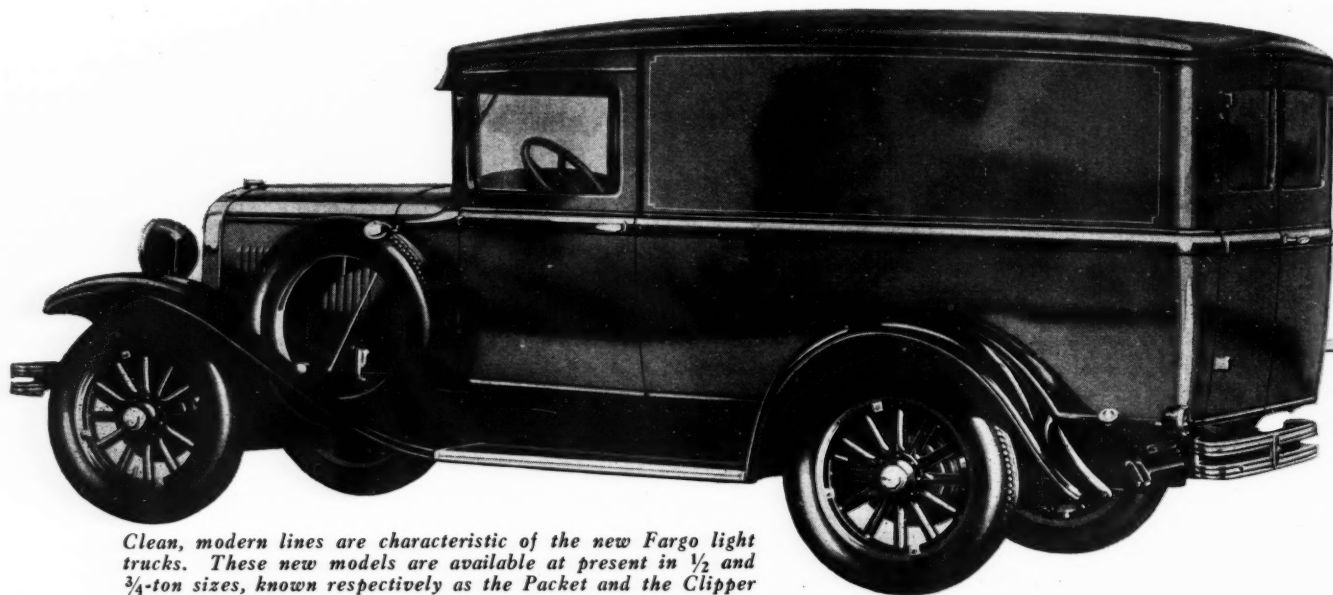
The major units are derived from the various Chrysler passenger car lines with the necessary modifications to adapt them to commercial car use. Internal four-wheel hydraulic brakes are standard on

both the $\frac{1}{2}$ -ton and $\frac{3}{4}$ -ton chassis and the bodies of these two models are interchangeable. These have cotton padding in the slat roof and in the body panels to kill body rumble and squeaks and the front compartment equals those found on passenger cars for fineness of finish.

The majority of the units found on the $\frac{1}{2}$ -ton Fargo Packet correspond to those found on the Plymouth. The four-cylinder engine has a bore and stroke of $3\frac{5}{8}$ in. by $4\frac{1}{8}$ in. and develops 45 hp. at 2800 r.p.m. The single plate clutch and the three-speed transmission are also similar to those in the Plymouth, but the rear axle is the same as that used on the De Soto which has a 4.7 to 1 reduction. The tires are 29 x 4.75 in. and the overall length is 169 in. Standard equipment includes dome light, rear vision mirror, automatic windshield wiper and spare tire mounted in front fender well.

The chassis of the $\frac{3}{4}$ -ton Fargo Clipper is developed from the Chrysler 65 and is provided with Lovejoy shock absorbers and rubber shackles. The engine is also the same as that found on the model 65 Chrysler which has bore and stroke of $3\frac{1}{8}$ by $4\frac{1}{4}$ in. and develops 65 hp. at 3200 r.p.m. The overall length of this model is 175 in. and the tires are 5.50/18.

Passenger car lines of the most modern accepted standards are characteristic throughout the Fargo line.



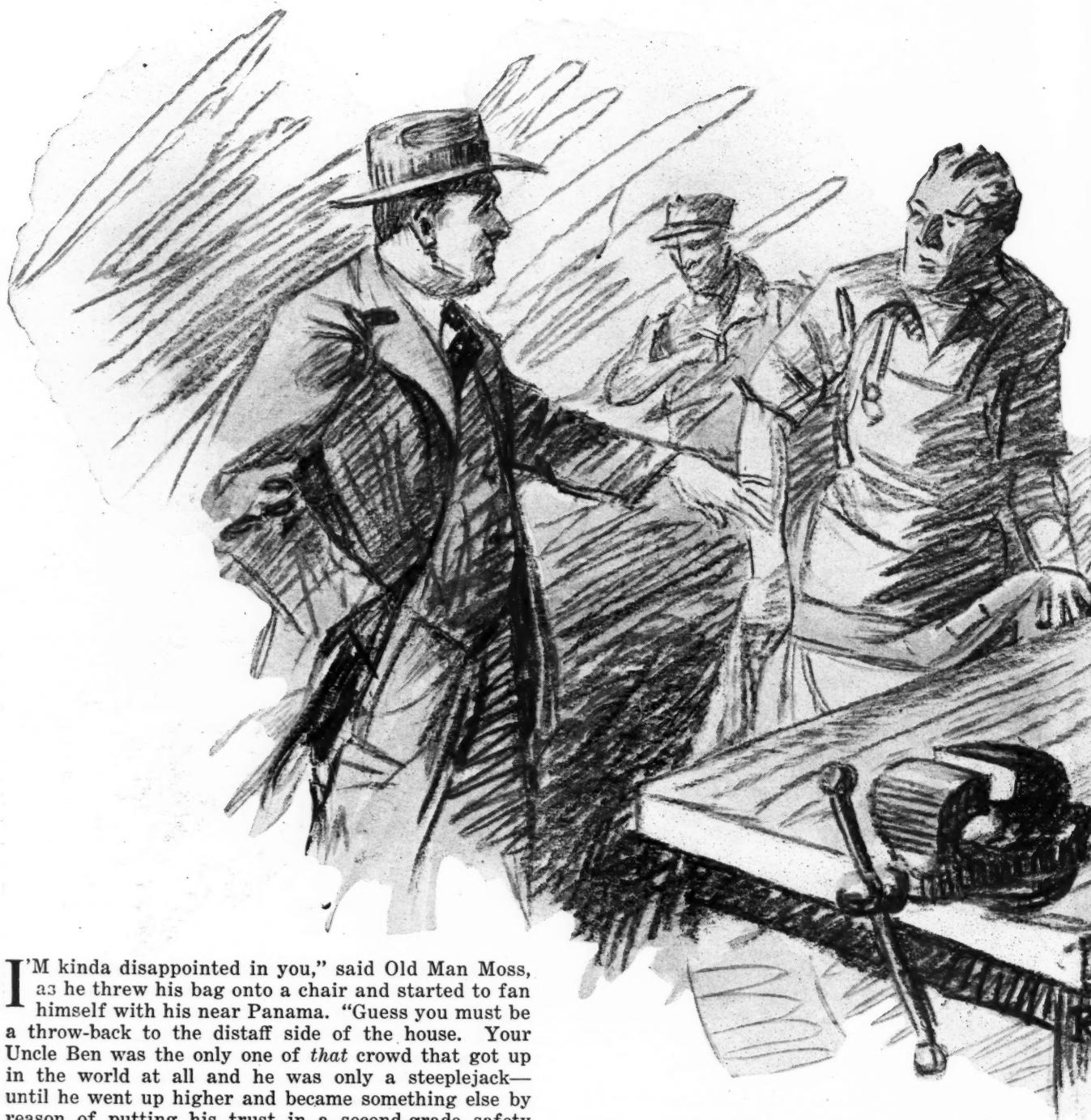
Clean, modern lines are characteristic of the new Fargo light trucks. These new models are available at present in $\frac{1}{2}$ and $\frac{3}{4}$ -ton sizes, known respectively as the Packet and the Clipper

Pete Keenan



A MOTOR AGE IMPRESSION = ROSS W. JUDSON
President - Continental Motors Corp.

Why SKELETON



I'M kinda disappointed in you," said Old Man Moss, as he threw his bag onto a chair and started to fan himself with his near Panama. "Guess you must be a throw-back to the distaff side of the house. Your Uncle Ben was the only one of *that* crowd that got up in the world at all and he was only a steeplejack—until he went up higher and became something else by reason of putting his trust in a second-grade safety belt."

"What's that got to do with me?" grinned Oliver Tremble, looking up from the tube he was patching. "Maybe the sun's too hot for an old stager like you, huh?"

"Never mind the funny stuff," grunted Moss. "What I mean is that when your dad retired and left you this business you were all set to make a swell living—and now look at it," he snorted. "You don't even carry enough stock for a cross-roads store."

Tremble smiled. "Have some respect for your blood pressure, will you?" he asked solicitously, as he wiped a finger-full of cement on the edge of the counter.

"I suppose you never heard of stock turnover," he continued, elaborately sarcastic. "Being a salesman you wouldn't want to know about it, but about the only chance we have to make a new dollar for an old one is by turning our stocks oftener than we used to. We got chain stores to compete with nowadays."

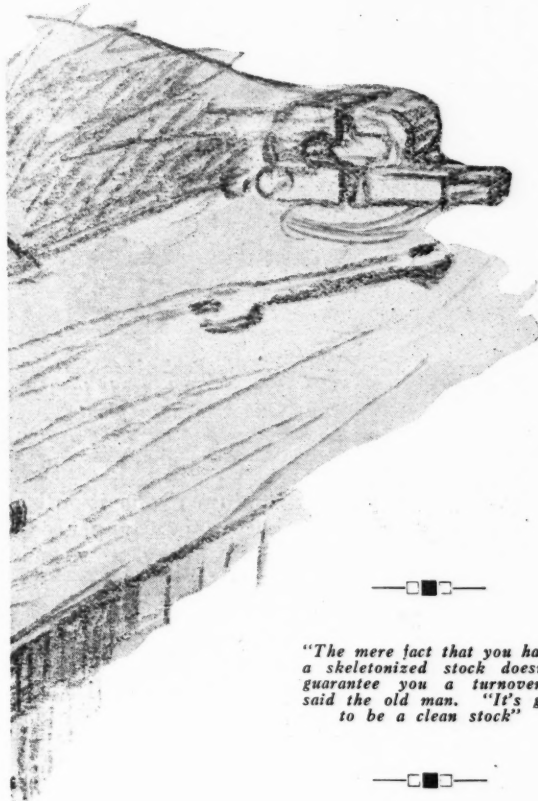
SKELTONIZED STOCKS?

*They Don't ALWAYS Speed Up
Stock-turn and They MAY
Reduce Profits*

By Sherman Swift

"I see," nodded Moss. "I see. You're a bright feller, ain't you! For the moment let's forget my lack of knowledge of turnover—which I understood all about before you got through kicking the slats out of your cradle—and talk about this competition. Whose fault is it that you have this competition? Who invited it? Why, you did—you and a lot of others that haven't got a soul above patching tires. You gave them just the toe-hold they needed by not tending to business.

"Now that they're in, you're helping them to succeed by not having anything your customers want, *because*



"The mere fact that you have a skeletonized stock doesn't guarantee you a turnover," said the old man. "It's got to be a clean stock"

of a foolish idea that a skeletonized stock has something to do with stock-turn. Which it hasn't."

"I'd like to know why it hasn't," said Tremble, suddenly truculent.

"I'll tell you if you'll listen," answered Moss somewhat testily. "You're like a lot of other people in this world. You get a smattering of a thing and know it all. Same as you did about stock-turn.

"The mere fact that you have a skeletonized stock doesn't guarantee you a turnover. It's got to be a clean stock. I've only just glanced at your shelves and

I can tell that you aren't getting stock-turn. How can you when you are carrying a lot of junk *on which there is no turnover?* Take that Radiator Stopper up there."

The old man pointed to a group of cans adorned with a label that, once red, had faded to a dull salmon-pink.

"Can you tell me why you carry such stuff when you can get the Blank line?"

Oliver followed the direction of the pointing finger. "That's one of the most profitable lines I handle," he defended. "I get 30 per cent profit on it as compared to 20 on the Blank."

The old man smiled. "That's just how much you know about merchandising," he laughed. "You haven't sold a dozen cans of that stuff since you bought it. Have you?"

"Perhaps I haven't," mused Tremble, after a moment.

"That's what I thought," nodded Moss. "If you'd had the Blank line, an advertised, dependable number that is favorably known to every motorist, you'd have sold hundreds of cans. I'll bet you've had many a call for the Blank line. Am I right?"

The younger man nodded. "I get the idea," he said, quietly, after a pause. "It means the difference between the profit on a dozen cans at 35 per cent or a hundred cans at 20 per cent."

"That's it," nodded Moss. "And I can go all through your stock and pick out just such numbers. So you see that a skeletonized stock doesn't necessarily aid you in getting quick turnover.

"The most important secret of stock-turn, aside from having a complete stock—of which I'll speak later—is to make the time between your purchase of the article and the time when the customer will buy it from you just *as short as possible*. To do that you've got to have dependable, advertised brands. The only merchandise you can afford to handle must be salable.

"And you'll find that goods of this class never carry a large gross. Why? Because it costs money to make them and it costs money to get them onto the market. *But there's no difficulty in selling them.* 'On and off the shelf' would be a good motto for you to bear in mind when buying goods. Forget discounts and concentrate on the fact that it's the stickers, the unadvertised, hence unknown brands that keep you from getting turnover.

"Another thing. I'm going to make the statement that stock-turn is of secondary importance in a store the size of yours. I mean it. The really important thing is to have a stock that is large enough to enable you to make an average of two profits from every third customer that comes into the store. That's the important thing."

"I don't think I get you," puzzled Tremble.

"I didn't think you would," laughed Moss. "I mean that you should have sufficient stock to sell the customer *not only what he comes to buy*, but also to sell him something else. Suppose he comes in for a cylinder-head or a gasket. You know right off that he's doing

(Continued on page 38)

His Only Comebacks

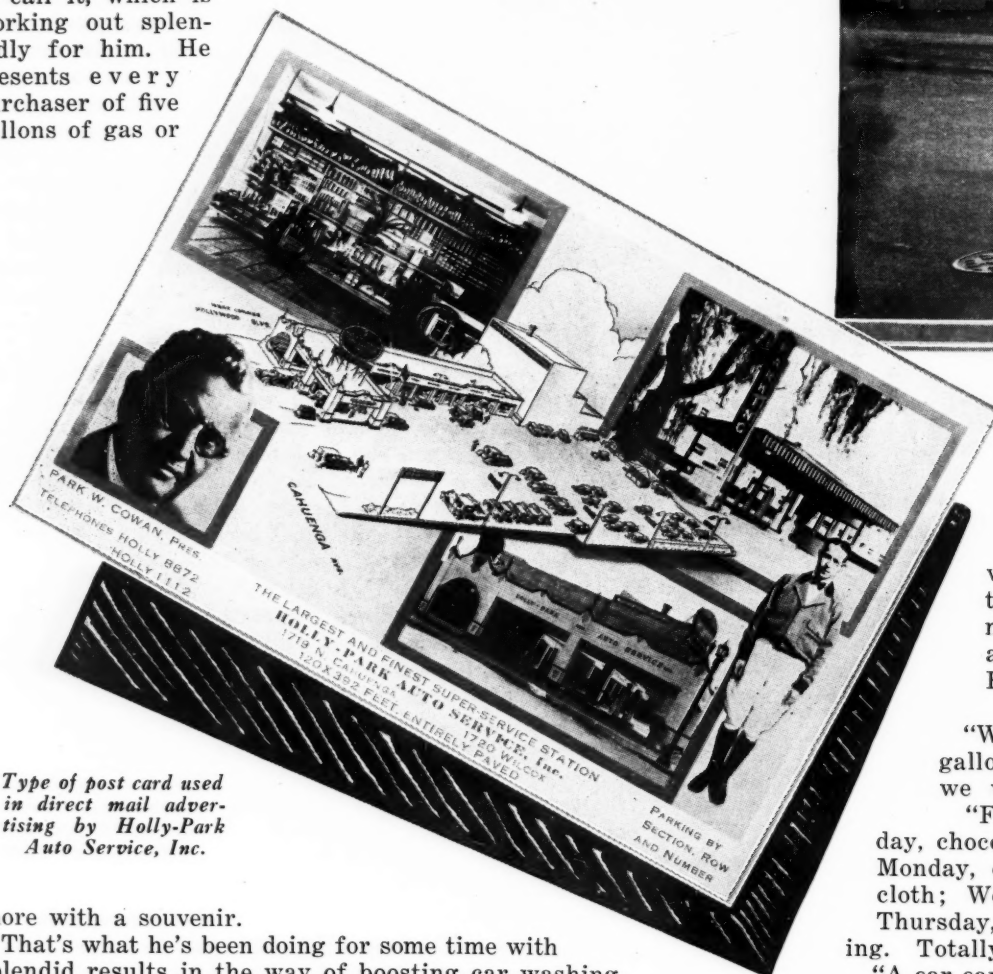
Here's a Novel Stunt in Premium Advertising That Keeps Everybody Happy

By Frank H. Williams

IS it good business or not for the filling station or auto park to give patrons tags entitling them to participate in a drawing on a car?

Well, that's for the individual filling station or park owner or manager to decide, of course. But in the opinion of Park W. Cowan, president of Holly-Park Auto Service, Inc., Hollywood, Cal., it's not such a hot idea, especially when every other station or park is doing about the same thing.

So Mr. Cowan has started a new stunt in the way of gift distribution or premium advertising, or whatever one may want to call it, which is working out splendidly for him. He presents every purchaser of five gallons of gas or



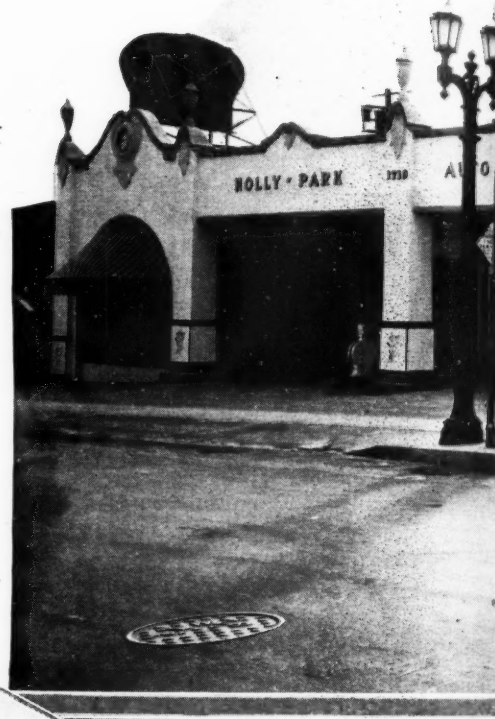
Type of post card used in direct mail advertising by Holly-Park Auto Service, Inc.

more with a souvenir.

That's what he's been doing for some time with splendid results in the way of boosting car washing, parking, battery service, and so on, as well as for the gasoline and oil part of the business.

Best of all, this sort of premium distribution has no comeback, as may sometimes be the case when cars are raffled.

Mr. Cowan profits to the fullest extent on the



Holly-Park Auto Service, Inc., is housed in this modern plant

premium proposition by running newspaper advertising every now and then, telling about the matter. Here's a recent advertisement he ran in a Hollywood paper:

"Cigarettes Free!

"With every purchase of 5 gallons or more of gasoline we will give the following:

"Friday, cigarettes; Saturday, chocolate bars; Sunday, soap; Monday, candy; Tuesday, dust cloth; Wednesday, toilet soap; Thursday, candy. Washing-polishing. Totally different and better!

"A car can be washed in a few minutes and it would be called 'Washing'—or it can be done so well and so thoroughly as to take more than an hour—and still it would be called 'Washing.'

"The idea is to call to your attention that there is a difference in washing and polishing a car.

Are Customers



HOLLY-PARK AUTO SERVICE
1719 Cahuenga to 1720 Wilcox

Car No. _____

Section A

Row 1

Stall 10

CAR CHECK

OPEN ☐

ALL ☐

NIGHT ☐

NOTICE

In issuing this check or accepting care on storage, the management assumes no liability for theft, fire or damage to any car, equipment or articles left in same, although we will use reasonable precaution to protect the property of our customers and render the best service.

Holly-Park Auto Service, Inc.

HOLLY-PARK AUTO SERVICE
1719 Cahuenga to 1720 Wilcox

Car No. _____

Section A

Row 1

Stall 10

AUDITOR'S CHECK

OPEN ☐

ALL ☐

NIGHT ☐

HOLLY-PARK AUTO SERVICE
1719 Cahuenga to 1720 Wilcox

Car No. _____

Section A

Row 1

Stall 10

CUSTOMER'S CHECK

OPEN ☐

ALL ☐

NIGHT ☐

NOTICE

In issuing this check or accepting care on storage, the management assumes no liability for theft, fire or damage to any car, equipment or articles left in same, although we will use reasonable precaution to protect the property of our customers and render the best service.

Holly-Park Auto Service, Inc.
Phone HOLLY 8872

This three-piece parking tag is used at Holly-Park

"It's a good deal the same as with a car itself—if you are buying a car you want to know the name of the car you buy, for some cars are worth only a fraction of what others are worth.

"You ought to be as careful to know the name of the concern that is washing and polishing your car—because there is just as much difference in the service rendered and the effect on the paint job.

"Cars washed, polished and cleaned at Holly-Park are done by experts—and the finished job proves its worth.

"Try Holly-Park next time—you will then know the difference."

This advertising, in addition to the direct mail advertising used by Mr. Cowan, has served wonderfully well in increasing the business of the concern.

Of course this distribution isn't the only reason why Mr. Cowan can afford to pay \$3,000 a month rental for the space—120 by 392 ft., fronting on two streets—where his establishment is located.

One of the additional reasons why he is doing so well is because cars are parked on this lot by sections, rows and stalls, these, when called for, are delivered to patrons at the waiting room, located at one side of the park.

The manner in which this sort of parking is made possible is quite simple. The space for cars—the park

can handle 200 machines when full to capacity—is marked off by sections, rows, and stalls. Each section, row and stall is lettered and numbered. Three-piece tags have been printed up corresponding to this numbering. When a patron brings a car to the park the foreman looks at his control board to see what space is open. On his control board there is a numbered slot for each stall and as cars are put in the stalls the "auditor's check" from the three-piece parking tag is put into the slot corresponding to the stall where the car is parked.

The foreman, of course, has a supply of tags for all the stalls. When he sees that some stall is shown on his control board to be empty, he obtains a tag for that slot. One part of the tag is given to the customer, the second part goes into the proper slot on the control board and the third section is attached to the car. Then a driver takes the car and parks it in the stall as indicated by the tag.

When customers call for their cars they turn in their checks. These checks are given to drivers who, of course, find the cars in the stalls indicated by the checks. Then when the cars are delivered to the customers the checks are taken from the control board and turned in with the customers' payments to the auditor. The foreman keeps the customers' checks and these are then audited with the auditor's checks to see that they correspond.

HIS ONLY COMEBACKS ARE CUSTOMERS

Parking is charged for at the rate of 25 cents during the day and 50 cents at night. The park is located just behind the big new Warner Brothers Hollywood Theatre which is drawing 50,000 people weekly and there is a big demand for parking space from the patrons of the theatre. The park is open all night.

All checks are stamped with the day and hour when cars are parked so that it is possible to tell if a car is left more than twenty-four hours; if so an extra charge is made.

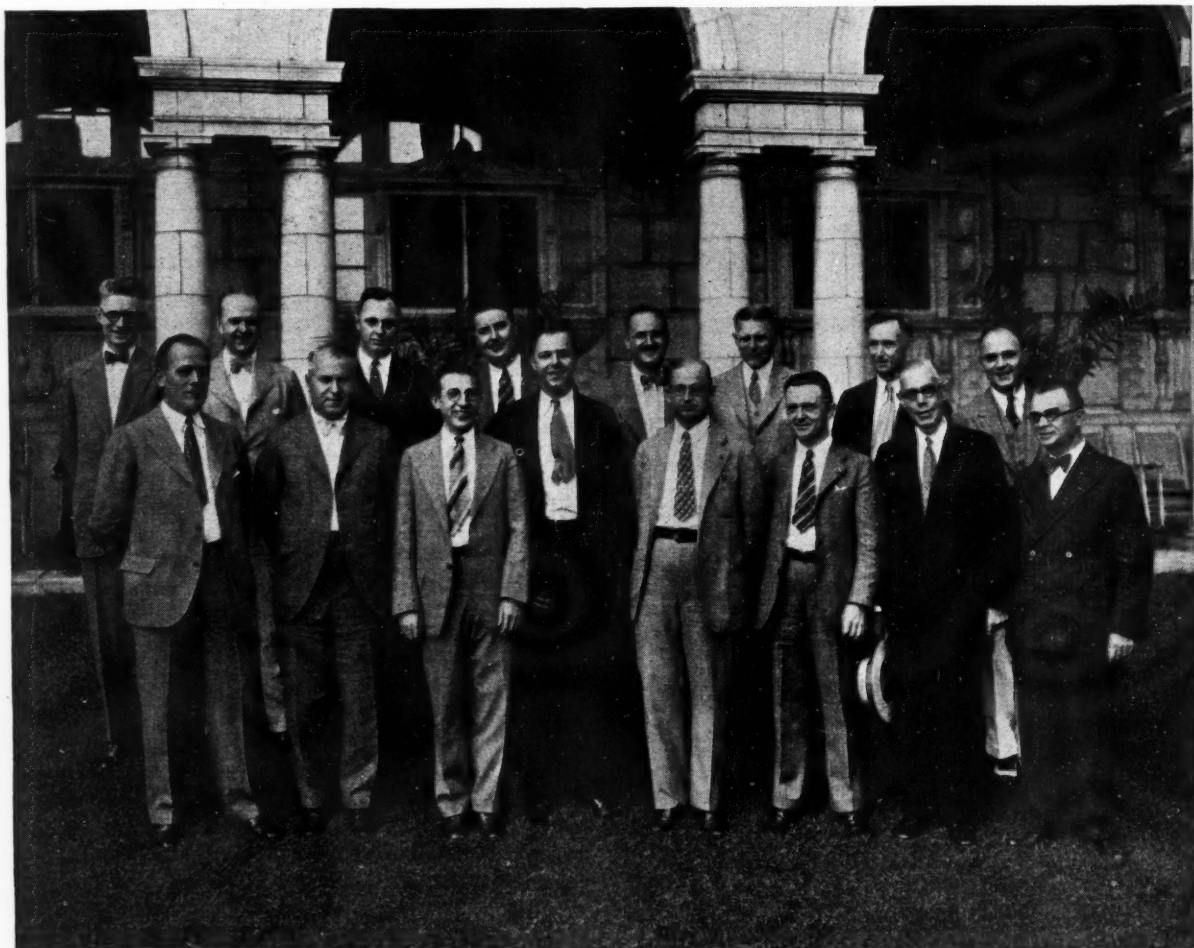
Mr. Cowan has found that this method of parking is attracting the highest type of customers. Many are moving picture celebrities attending their premieres at the big theatre. Owners of this class seem to prefer this method of parking to that of having to go on to the lot and help locate their cars.

In addition to all this, Mr. Cowan uses direct mail advertising quite considerably in building more business. A particularly effective bit of direct mail advertising used by this park is in the nature of a souvenir post card with this reading matter on the

face: "This picture gives a bird's-eye view of the finest super-service and auto park in the United States, equipped with the latest machinery, operated by the highest skilled mechanics possible to obtain. We have specialists in the washing, polishing, greasing, battery, brake and tire departments. We cordially invite you to call."

This reading matter is reproduced in Mr. Cowan's handwriting. He personally addresses these cards to good prospects so they look as though he'd personally written the message in long hand. This personal touch has proved profitable. Other direct mail advertising is also used from time to time with good results.

There are no concessions at this plant; everything about the place is owned and operated by Mr. Cowan. There are 25 employees in all, eight of whom attend to car parking. All employees are uniformed in riding habits and lumberjack coats, the latter being used only in winter, of course. This uniform is serviceable and good-looking. The entire park is paved.



They Keep the Home Tires Turning

DISTRICT managers attending Gardner regional sales managers' conference which met recently at St. Louis. Each member of this aggregation of successful salesmen registers enthusiasm, as the picture so plainly shows

THE BOSS TAKES A VACATION

(Continued from page 23)

a fish market and a green-grocer's, was a tiny filling and service station. Wonderingly, we ambled down. A rickety flivver dodged between the grocer's truck and the fish wagon and slithered in. Before it had come to a stop, an ambitious youngster had hopped upon the side and was energetically polishing the windshield. His prototype unscrewed the radiator cap and conscientiously filled the radiator until it overflowed. An equally energetic adult was attending to the gas and oil requirements.

"Have your car washed and polished, mister?" The lad did not realize the irony of this. A washing would remove the accumulation of dust, but polish? What was there to polish?

"Come inside and let me show you the new casings that have just come in," put in the adult. "You'll certainly be surprised at the figure at which we can offer them to you now." Obliging, the flivver owner followed him into the shop. And when he came out, he was the possessor of a new tube and casing as well as a few lesser articles that he had been helped to remember he needed.

The boys were standing near his chariot, hoping for something further to do. Instinctively he reached in his pocket and came up with a dime. "No, thank you just the same, sir. We get paid, and you see, we are just helping dad out during vacation. See that?" and the boy pointed to a sign that had escaped the man's notice, "No tipping. We sell service." Smilingly the man and his rickety flivver went on their way.

All day long our thoughts wandered to that big station and its haphazard methods, for haphazard from our observations its methods were. In the evening we started for an airing. Of course, we needed gas; we always do. Many roads lead from Philadelphia, perchance as many as lead to Rome, but we took only one. Slowly we drifted by the little service station. The wash rack was in use and the two youngsters were much in evidence. We did not stop here. How they came by business was obvious, they kept after it, and kept pegging when they got it.

Being in this part of the town, the obvious and rational thing was to stop at the station whose brand of service we had so much admired—but a woman and her curiosity! We must find out about that larger station. Too, we may have feared that man would sell us some of the accessories of which the old bus was glaringly in need.

The big attendant was no longer on duty, we guessed that it was his off night and thought he had been "off" the greater part of the day. The evening was young and business was not pressing. Being white and female, it was easy enough to engage the man at the tank in conversation. In fact, as he waxed loquacious, prodded on by a few sly questions, we gathered that he wanted to talk. It seemed that he grew lonely, what with staying there all night, and so many people passing and so few stopping. Just a man for the gas and oil was all that was needed at night. Why tires and tubes and the like were not needed at night, we failed to get.

Oh, when the old man was here, he hung around to all hours, sold a few things, too, we learned. But the 'old man' was away now, hadn't been off the job in 10 years and decided he'd take a vacation. He's been away a week now, and would be back in another week. But who was in charge, we asked; who was manager when the owner was away?

"Aw, we just go on just the same as if he was here," we were told. "We've all worked for the old man for years, we know the business."

At last it was out—the reason for this organized disintegration. The boss was taking his vacation. For years there had been a strong hand at the helm, an indomitable will to back all enterprises. And now, like any ordinary clerk, the brains and power of the organization had gone to take his two weeks. But unlike the clerk, he had not left a lesser clerk to step into his place during his absence, nor had he left an executive to see that the lesser clerks kept the wheels turning.

These were his boys, they were to be trusted. They had helped him build up his business. Surely, after 10 years he could take two weeks, as did the men who worked for him.

But the man forgot to bear in mind the many things about his business that he had always done, so jealously, himself. He failed to take into consideration that since the opening of his new station, he had all but done the thinking for his men. He did not realize that in the pride of his new building, he had become a near-slave driver, that when he was not there to stand over his men, the reaction would cause a breaking down of the morale. He did not remember how greedily he had guarded the stockroom. These possessions were his, his, their ownership acquired by years of sweat and toil, bruises and grease. His were the hands to display and sell the stock. No one knew the stock but the old man; no one knew the books but the old man. The pretty little stenographer, who came from nine to five, was of the same worth to the office as the typewriter on which she typed. She typed what the old man told her.

Above all, the driving personality of the man was missed. He was to be seen on the wash rack during the middle of a job, haranguing the man in the pit during a draining job; he was every place at once.

The old man had not misjudged his boys, they were loyal. They were loyal to the old man. The old man came first and the job afterward. But after being the brains of the organization, the old man should not have taken himself off even for two weeks, without having some one trained to take his place, some one capable of directing and taking the initiative. An employee who keeps his work so much to himself, so much a secret to the other employees, that if something unexpected happens to him, no one is prepared to go on with the work intelligently, is a liability to the organization. An employer who is secretive about the workings of his business to trusted employees is piling up losses for himself and his company.

We only hope that the "old man" does not decide to take two months instead of two weeks. For when he returns, he will start not where he started two years ago when his new station was opened, but beyond that. He will start a fight to overcome acquired prejudices, a fight to eradicate the memory of slights, real and imaginary. And he'll fight to get his boys back into pace! For months he will strive to wipe out enmity brought about because his men were out of touch with the public and there was no one to meet and handle the trade with gloves. He will never believe it could all have happened in two weeks. And he will be right—it could not. It has been happening the years he has been czar of his business without an equal *aide-de-camp*.

Layout for Small Town Filling Station

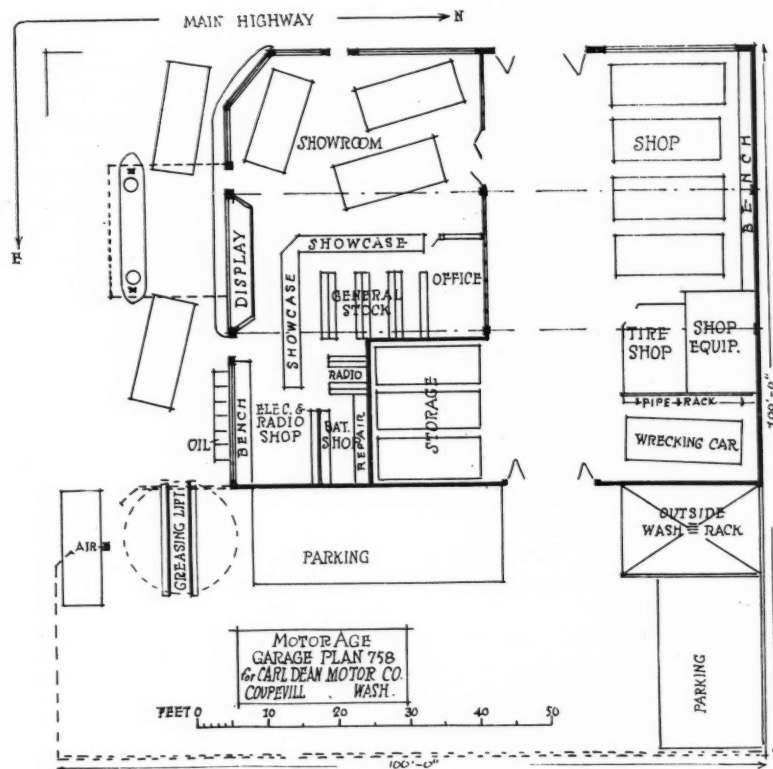
*A Specialized Structure to Be Built
in the Turn of the Road*

By Tom Wilder

GENTLEMEN: I have just purchased a corner lot 100 ft. square on a main highway. What I want is as complete a plan as you can give me for a corner gas and oil station, and a showroom for two or three new cars. I also want quite a good sized accessory and supplies display. I sell three lines of radios and perhaps should have a separate radio display and demonstrating room. I will have two visible pumps on an island across the corner and as the main traffic turns around my corner, I want the pumps set back and the corner of the building cut off far enough to leave plenty of room on this rather busy corner. Any suggestions you can give me will be greatly appreciated.—Carl P. Dean, Coupeville, Wash."

We have omitted most of your letter because it is so long and because the data given would not be of interest to other readers. However, the letter sets forth the conditions very clearly and it would be well worth printing as an example of what we like in the way of information.

In the first place, as inexpensively as you can build it, the cost of your building is bound to exceed your appropriation. We suggest that instead of sheet iron (which is not cheap in the long run, because it will rust out from the back where it cannot be painted) that you use metal lath nailed to the frame with two coats of cement stucco. In a damp climate this will



A skylight in the shop is desirable even if you have windows on the north side. Don't let your desire to reduce the cost make you skimp the lighting

outlast several sheet metal coverings and will look better.

We have departed considerably from your sketch to make the building more compact, to improve the filling station and to allow for a greasing lift and air station in convenient places. The corner station is not the best arrangement unless there is a great deal of space and while you have enough, we think it better in this case to have more main street frontage for the showroom and a shop entrance. The arrangement will also leave you a way to make an easy addition should you desire one later. By covering the rear part of the lot as shown by the dotted line, the service

facilities could be more than doubled or you could devote some of the space to storage. As long as the bulk of the traffic is around the corner, a filling station of this kind is as good as one across the corner.

There is a liberal space for stock and there should be no trouble finding room for your hardware stock, but if necessary the space may be enlarged forward at the expense of the showroom, or back, using one of the car stalls. The office space may be used and the office moved into the showroom area.

While at present the location selected for the greasing and air tower is best, completing the building would make a move advisable. If there is a likelihood of making the addition in the near future, we would suggest placing the grease rack in the rear corner of

(Continued on page 36)

Useful Shop Equipment

Engine Service Set

THE latest Fleming Set is the motor reconditioning set, which includes all the precision tools used for checking up cylinder jobs, fitting pistons, piston rings, etc. It consists of the Fleming cylinder gage (range 2½-5 in.)—an entirely new type of cylinder gage, easy to use, as it supports itself in the cylinder and is unaffected



by wear, the Fleming RL outside micrometer set (0-4), the Fleming inside micrometer set (2-5 in.) and the Fleming 9 in. thickness gage (8 blades, range .002 to .053). The set boxed sells for \$35, by the Fleming Machine Co., Worcester, Mass.

Wheel Puller Set

THE C. & G. Raybestos Super Wheel Puller, which is said to fit 375 cars, consists of one Universal Wheel Puller, one Special Wheel Puller, with a keeper for each puller, 10 adapters for the Universal puller, 14 adapters for the Special puller, and a large drop forged wrench.

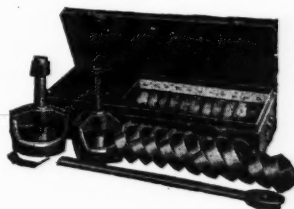
This outfit is put up in a heavy steel box, with hinged cover securely closed by trunk fasteners. It is equipped with convenient drop handles for carrying.

The body of the puller is a one-piece high point carbon steel casting. It has ample strength and is handy to use. The thread through the body of the puller for the power screw is extra long, which eliminates the possibility of stripping.

The adapters are of Ductile metal tapered on the outside to fit the bore of the puller body. They contract to exactly fit the hub threads with a powerful grip. The adapters are interchangeable and cannot be broken in use.

A chart, furnished with each puller, lists 375 cars in alphabetical order. A glance at the chart tells which adapter to use.

The C. & G. Raybestos Super Wheel Puller, complete with two wheel pullers, two keepers, 24 adapters and heavy wrench sells for \$60.



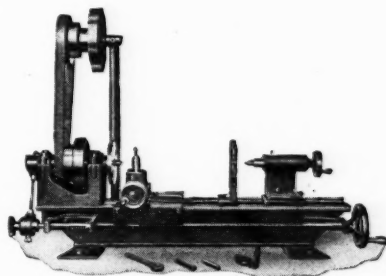
Gasket Material

TENAX for heat and Tanpac for oil gaskets are two of the special gasket materials produced by the Advance Packing & Supply Co., 808 Washington Blvd., Chicago, Ill. These materials are supplied in sheets so that it is possible for a mechanic to cut his own gaskets, thus saving the time that would be required for looking up special gaskets for unusual jobs.

Bench Lathe

A HEAVY duty bench lathe of large capacity is announced by Allen Electric & Equipment Co. It has a 38-in. bed and swings 10-in. diameter.

This lathe is specially designed for garage service to handle all classes of lathe work which the garageman encounters. It can be used for boring, turning, machining, milling and drilling, either straight or taper. It is adapted to such jobs as making bushings, milling key seats, commutator

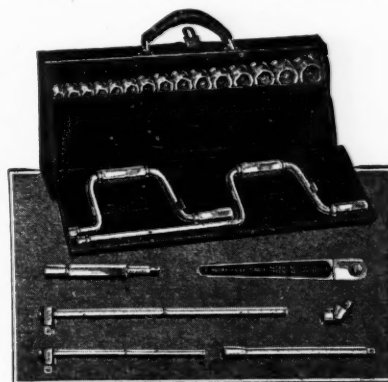


turning, straightening shafts, facing gears, turning up slip rings, tapping nuts, etc.

The new Allen Lathe is furnished fully equipped, ready for operation, including power feed, countershaft and belting, face plate, centers, lathe dog, tool bit and wrenches for \$110; weight of outfit, 230 lbs. Details can be secured from your jobber, or by writing direct to Allen Electric & Equipment Co., Kalamazoo, Mich.

Husky Kit

THE Husky Wrench Co., Milwaukee, Wis., announces a new Husky Set combining IN ONE an unusually complete wrench set with an extra strong and roomy Tool Kit. Sockets and handles contained in this set were carefully selected to present a practical set with the least number of separate units. This is claimed to



be the only set on the market including a 15-in. long combination tee to give the necessary leverage for "tight jobs" and to properly take care of the larger size sockets up to 1¼-in. Hex. Brace and speeder are attached with clips in cover so they will not interfere with the accessibility to the inside of box where all partitions have been removed to provide a maximum of roominess. Sockets are conveniently arranged on upper shelf, all openings facing toward the front, in plain sight, so that the proper size can be selected at a glance. Set is packed in a strong and rugged Tool Kit made of 20 gage Auto Body Steel, finished in durable black lacquer and equipped with strong hasp for padlock and a leather carrying handle. Complete descriptive literature will be gladly furnished upon request.

Body Repair Book

A CAREFULLY prepared illustrated copyrighted booklet has been issued by the Edward G. Budd Manufacturing Company, of Philadelphia and Detroit, for the use of automobile repair shops, garages and others who may have occasion to repair Budd all-steel bodies. The book gives detailed instructions for all kinds of repairs that might be necessary in the servicing of Budd bodies. Those interested in such work are invited to write to the Budd Company at Philadelphia for copies of this new booklet.

SMALL TOWN FILLING STATION

(Continued from page 34)

the lot so that the wall can be built around it when necessary.

It would be simple to arrange an electric signal for your pumps; a piece of heavy wood could be set in a slot in the concrete pavement with a heavy spring to hold it up flush. The spring should resist a man's weight but yield under the weight of a car so that when a car goes over, it presses the wood down, making contact between points on the bottom of the slot

which completes the connection of the buzzer circuit.

There would seem to be no need for the above, however, when the radio man is on the job, for there is nothing but windows between him and the pumps.

The writer does not favor the metal roof, but believes wood sheathing and tar and gravel or prepared roofing would be more serviceable. It is hard to keep the under side of a metal roof painted and that is where it rusts out.

Tarbill Again Heads Ohio Council

(Continued from page 25)

ue was put on by R. C. Borden and A. C. Busse, of New York University. These two men have been studying salesmanship for over seven years and have analyzed 16,000 individual sales interviews. From these studies they have developed six principles of selling, all of them simple and all of them tested in actual practice. They may be summarized briefly as follows:

Don't talk too much yourself. The prospect wants to have his say.

Don't become argumentative or belligerent during the interview.

Don't interrupt the prospect when he is voicing an objection.

Let the prospect explain his objection in detail. Inquire first and attack second.

When the prospect has explained his objection, restate it briefly in your own words so that he will know that you understand him.

In concluding the interview, concentrate on the one big feature.

Of course, all of these points have to do with the technique of conversational strategy and do not take the place of a thorough knowledge of the product and its market.

Scrapping plans were discussed by A. B. Waugh of Omaha and Ralph Sandt of the General Motors Corp. Mr. Waugh stated that the Omaha yard was earning a profit every month on operations without taking into account the inventory investment. An interesting point brought out by Mr. Waugh is that labor employed to scrap the cars is paid on a piece-work basis. Selling used parts is essential to the success of the plan, as about 75 per cent of the income is derived from this source. Mr. Sandt presented some of the high spots of a survey he has made of scrapping operations in a number of cities.

Legislative and legal matters affecting the dealers were taken up by Chalmers Wilson, Commissioner Motor Vehicle Department, Ohio, and Warren Griffith, Chrysler distributor in Toledo and first vice-president of the N.A.D.A.

Common Sense of an Uncommon Kind

(Continued from page 21)

to accumulate. He sees to it that just as much sale pressure is put forth on used cars as on new cars. All used cars that are worth reconditioning are reconditioned.

Jim believes it is good business to sell the new car first and to purchase the prospect's old car *after* he has been sold on the new car. He offers a price for the used car which is fair to himself and to the prospect. Once he has set his price nothing can change his mind. "I'm in the business to make money," he says, "and if I start giving the prospect too high a price for his used car I'm not going to last."

Similar policies govern his service shop. The owner, on bringing his car to be serviced, is told what it will cost. And he pays that price. If the work isn't satisfactory, Jim sees that it is made right; *he believes that a satisfied customer is the best advertisement any dealer can have.*

His three salesmen are paid a straight salary and commission. He has been doing this for some time and finds that it is good business.

"When you pay your salesmen a salary and commission," he said, "you know that you are going to have better control over them. You'll find, too, that they will really work for you and that they'll make an honest

effort to sell the prospect the new car rather than try and sell you the prospect's old car.

"They'll be more careful about their deals and the kind of paper they'll accept. I give my salesmen some leeway about the paper too. I've found all this out by actual experience. It isn't theory—just plain facts.

Jim maintains strict supervision over his salesmen. Unlike some dealers, he and his salesmen canvass the farmer continually. Each salesman has a separate territory and works that locality.

Every place they stop, which is every farmhouse, they chat with the farmer and his wife. Perhaps the young son or daughter will join in. The talk isn't confined entirely to automobiles. It might be about the weather, politics or any one of half a hundred subjects that are of current interest.

This conversation may take place in the fields. It all depends on where the farmer chances to be. There are many instances where Jim and his salesmen have obtained the order while the prospect was working in the field.

Jim's success offers genuine proof of what a man who uses common sense can do with the product of a manufacturer who cooperates with him to the *nth* degree.

The Latest in Accessories

Multi-Dust Mitt

MADE of gauntlet design with 16 separate cleaning surfaces of chemically treated cloth, this mitt has many original features. When the surface being used becomes soiled, a fresh surface is provided by turning over from back of mitt. After all sur-

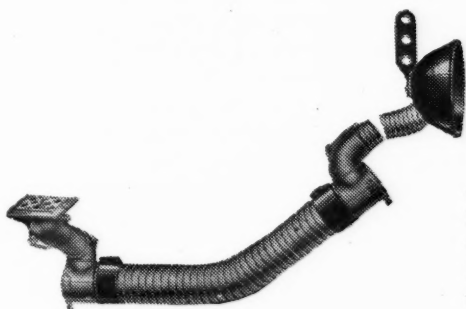


faces have been turned over, the mitt is reversed on the hand and the operations repeated. In this manner both sides of the cleaning surfaces can be used. The hand and sleeve of the user are protected by a specially treated cuff. Price, each, packed in metal container, 75 cents. Manufactured by Junior Sales Co., 118 W. Thirty-sixth St., Los Angeles.

New "Flexo" Heater

ONE of the outstanding developments in heaters with the Cooper Mfg. Co., Marshalltown, Iowa, this season, is the Cooper "Flexo" Jacketed Type.

By patented locking rings this heater is adaptable to most of standard makes of cars. The long, flexible heating chamber of this particular Cooper model assures a large volume of clean, odorless heat—without noise and easily



regulated or shut off entirely by the positive valve located directly under the register.

Another outstanding feature of this Cooper model is its ease of installation—only a 3-in. opening in the floor board is required for the register—and the

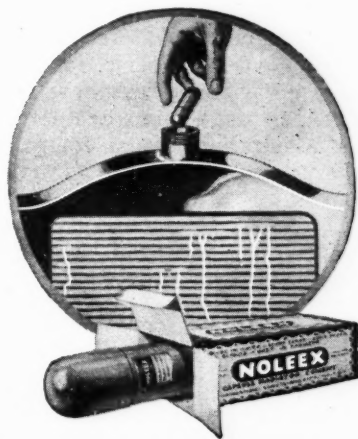
heating chamber length is easily adopted to any exhaust pipe.

The Cooper plant at Marshalltown is now in full production on all models of Cooper heaters including new types for Model A Fords and 1928 Chevrolets as well as three styles of exhaust heaters—The Standard—Rail Type—and Long Register "De Luxe."

Literature is ready on this line and dealers may write Cooper Mfg. Co., Marshalltown, Iowa, for full details.

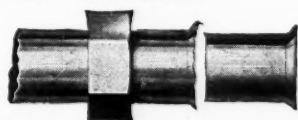
Radiator Repair Capsule

NOLEEX is a radiator repair material put up in capsule form. A capsule dropped into the radiator neck is dissolved, thus liberating the leak stopping material, which quickly gets into action and takes care of leaks which may be present in the cooling system. With this there is nothing to open, pour or mix, it is just a matter of dropping the capsule in and letting the engine run. These capsules sell at 60 cents each. A display container carrying 20 capsules lists at \$12 with a discount of 50 per cent to dealers for one or more such containers.



Exhaust Pipe Flange

A FLANGE for the purpose of repairing the exhaust pipe on the Model T Ford has been produced by the Wennett Mfg. Co., 24 Sudbury St., Boston, Mass. This repair unit is installed by merely sliding the new flange into place and pulling up on the packing nut which comes with it. The list price is 35 cents each.



Adjusting Spanner Wrench

MOST unique is the new Kent-Moore Universal Adjusting Spanner Wrench. Whenever a wrench is needed for adjusting nuts on the rear axle, or elsewhere, this tool will answer the purpose, and fills the place of many special spanners otherwise required.

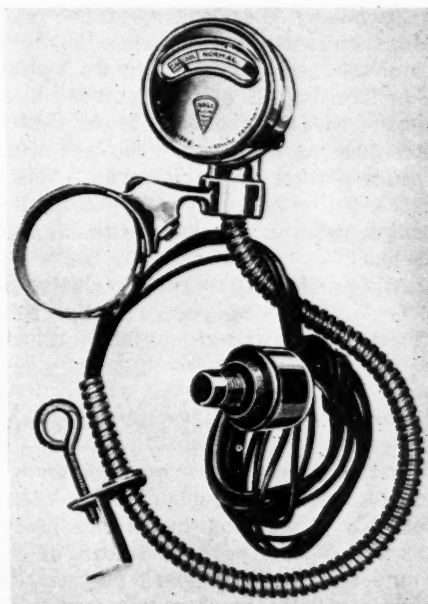


The Adjusting Spanner Wrench can be used in three positions, and has a wide range. Built of special alloy steel forgings, it possesses long life, and will afford any mechanic one of the handiest tools he has ever used.

The Adjusting Spanner Wrench is made by the Kent-Moore Organization of Detroit and Kalamazoo.

Heat Indicators

THE Model S.C. heat indicator is one of the latest instruments designed by the Nagle Electric Co., Inc., of Toledo, Ohio. The one shown is designed to clamp to the steering column. All Nagle heat indicators operate electrically, providing an instantaneous and accurate temperature of the engine at all times.



BAY STATE INSURANCE LAWS MUDDLED

(Continued from page 24)

by Governor Fuller in the following notice recently issued.

"We have been having some controversy with the insurance companies recently, and I want to say that I believe the different insurance companies are overcharging the people of this commonwealth in exorbitant rates for insurance of one kind or another.

Attacks "Insurance Lobby"

"I tried to get a resolution through the legislature to investigate insurance rates, but the insurance lobby was too strong. They told the boys in the legislature what to do and practically every mother's son of them made a low bow and took off his hat. These insurance companies do not need any one at the State House to look out for them, except to see that they don't carry it off."

When told of the New York Indemnity Company's action to stop writing insurance in Massachusetts, Governor Fuller said: "I think the other companies are still paying a commission of 17 per cent to their agents who turn them in some of this 'unprofitable' compulsory business. I might say that the insurance companies pay a commission in excess of that recommended by the insurance commissioner."

It is perhaps an evidence of the belief of the insurance companies in the soundness of their case that they are planning legal means for appealing the present rates, in which case their figures on premiums and losses would be subject to scrutiny in open court. Under the original law, appeal had to be made shortly after the filing of rates, and as the current rates were filed more than a year ago, appeal would be impossible. An amendment effective June 11 may open the way to an appeal, however, though it probably was not intended to cover a situation of the present character.

Meanwhile, however, another influential group—the truck operators—appears to have suffered through the recent developments. Commissioner Monk had stated that the new schedule would lower rates on commercial vehicles.

Appeal is Considered

Secretary Day Baker, of the Motor Truck Club of Massachusetts, states that attorneys for the organization are now considering an appeal to the Supreme Court on behalf of its members based upon the assertion of ex-Commissioner Monk that under his proposed schedule of new rates the premiums for commercial vehicles were to be lowered. His refusal to file the rates following his resignation left the commercial vehicle rates in the same status as for 1928, temporarily, at least.

Among the important legislative moves planned are:

1. A bill to be prepared by the insurance companies to repeal the compulsory insurance law.

2. State Treasurer William A. Youngman, candidate for lieutenant governor, has a bill providing that all reports of settlements shall be filed with the insurance department at the State House so that they would be open to the public.

3. Frank A. Goodwin, ex-motor vehicle registrar, a candidate for governor, is advocating a State fund to handle the insurance whereby \$10 or \$15 will be paid by motorists when they register their vehicles, and out of this to be paid the claims, under State supervision, and investigations made by the motor or some other department.

Compulsory insurance evidently has not worked out so smoothly in Massachusetts. Nearly everyone acknowledges that it has proved a gold mine to unscrupulous attorneys and accident fakers. This was predicted as long ago as 1926. Exorbitant claims have been the rule since the law became effective. Inasmuch as every motorist in the Bay State is insured there is no such thing as a judgment-proof motorist, as far as personal injury or death claims are concerned. Naturally, this condition of affairs is just what the ambulance-chaser seeks in order to carry on his work."

Future compulsory insurance laws will have to take into consideration the fact that this form of protection for the dependents of automobile accident victims and the victims themselves breeds accident faking.

There is reason to believe that the "Massachusetts Muddle," as it has been referred to, may result in State insurance. This factor is not one to please the insurance companies, who have all along opposed compulsory automobile insurance secretly on the ground that it would eventually result in a state fund to be administered in much the same manner as workmen's compensation funds are handled by the various States. Just how the State could be more effective in curbing accident faking and reckless driving than insurance companies have been is problematical. Workmen's claims appear to be less susceptible of fraud. Under State insurance, however, the motorist would at least be assured of insurance at cost, provided the State fund is properly handled and politics is kept out of its administration, say those who have kept abreast of affairs.

A Warning to Other States

The most significant part of the situation in the Bay State is that it demonstrates, or should demonstrate, to legislators throughout the country that compulsory insurance is not yet successful in Massachusetts. It should prove some of the difficulties of such a law. In view of the political campaign under way, furthermore, it seems safe to predict that for a time, at least, legislators will proceed slowly with proposals in other States.

Why a Skeletonized Stock?

(Continued from page 29)

some kind of an overhaul job. Your cue is to sell him not only the gasket but a can of gasket compound, a box of cotters, perhaps a can of valve-grinding compound and a set of spark plugs. 'Plus' the sale, or as I spoke of it a moment ago, make two or more profits

to a customer. You can't do that with a skeletonized stock—and it's a whole lot more profitable than making a fetish of stock-turn. See what I mean?"

"I sure do," answered Tremble, thoughtfully. "You've given me something to think about."

READERS' CLEARING HOUSE

Questions Answered By C. Edward Packer

Armature Trouble

I have been having some trouble with Ford generators for quite a time. I can overhaul the generator and test each part and turn down the armature or sand it, and undercut the mica and everything is fine for a while. Then two or three days or possibly a week or month later, it will quit charging. Then I sand the commutator and it is all right for a while. All I can blame it to is the brushes being too hard, but I have tried regular Ford brushes and other makes but it doesn't make any difference. This is not one case only that I speak of for I have found this trouble in many of these generators.—H. A. Case, Harry's Auto Service, Milan, Mich.

WHILE we believe that your trouble is in the connection between the wires and the commutator bars, there are a couple of other things that you would do well to check up on. First, get a dial gage and mount it so that the contact point of the gage is touching the top of a brush. Then rotate the armature and note the commutator eccentricity in thousandths. It should not be over .003 eccentric. Eccentric commutators are sometimes found on repaired armatures, and are due to failure to remove the dirt from the center hole when putting the armature in the lathe for turning down the commutator. Eccentricity of the commutator results in excessive up and down motion on the brushes. This wears off carbon particles which tend to cause shorts between the commutator bars and which also are responsible for a great deal of trouble with brushes clogging or sticking in the brush holders. The trouble above referred to, namely, that of a poor connection between the wires and the commutator bars, is not unusual, especially in some of the lower-priced rewind jobs. It is caused by failure to thoroughly clean the ends of the wires before inserting them in the commutator bars. As a consequence, when the soldering is done the solder does not make a good contact, for the dirt boils up and keeps the solder out. The result is that possibly only the end of the wire is making contact with the commutator bar and in the course of a little time continued heating and cooling, together with the vibration of operation, results in a break in the connection at this point. Then when you sand the commutator, the sandpaper slides to one side and touches the connection moving them into their slots,

cleaning up the ends, and making contact. That is the most likely cause of your trouble. To remove such armatures and carefully pry out the wires, clean them and solder them back into place is about the only sure cure other than to see that in the future the source of supply on these armatures is very carefully checked and rewound armatures obtained only from organizations with a reputation for quality.

The Ford Mystery

I am having trouble with a Model T 1924 Ford. It was recently overhauled, valves ground, new rings and all other necessary work done. The compression is good and absolutely even in all four cylinders. With the switch on battery the car hits perfectly. I can short out any three coils and it will run on the remaining cylinder, but with the switch on magneto, cylinders one, two and three, hit perfectly, but if I cut them out, No. 4 will not keep the engine running. In other words, it is a little weak on No. 4 cylinder when running on magneto, but perfectly uniform when running on battery. I have checked the valve clearance and reground No. 4 valve, also checked the intake manifold for leaks, changed coils around and tested timer and loom. If there were anything wrong with the plugs, coils, loom or timer, why should it run all right on battery but not on magneto? Also, if there were a defect in the magneto why should it hit on one, two and three, but not on four. I did not mention that the spark plugs were tested and also changed around with no result. We also tried a different carburetor and gas line. I know this doesn't sound reasonable, but the fact remains that the car runs perfect on battery, but misses on No. 4 when being run on magneto. I certainly hope you or your readers will be able to give me some information on this.—John F. Koehler, 916 S. B Street, Grand Island, Neb.

WE certainly agree with you that this does not sound reasonable, but we have no doubt that the condition exists. Our first suggestion would be that you have the magneto recharged in order to get the hottest spark possible from it. No doubt the big trouble is that the whole engine runs just a little weaker on magneto than it does on battery. Added to this you probably have some such condition as very slightly lower compression in No. 4. No doubt this difference in compression is so slight that you cannot feel it, but if there were a 5 lb. difference in the compression, there would be a 25 lb. difference in the explosion, for the explosive force is approximately five times that of the compression. Multi-

plying this by the area of the piston you will see that a 5-lb. difference in compression, which would hardly be noticeable when testing with the hand crank, and would not appear very conspicuous if using the gage, would result in a difference in explosive force of 50 lb. MOTOR AGE readers all know that if they have any practical suggestions to make on this peculiar trouble, that their comments will be most welcome and if they seem particularly good, will in all probability be published. We believe, however, that recharging the magneto and then checking the compression most carefully, using a regular compression gage, will take care of this problem.

Assembling a Basket Full of Parts

I would like some information on starting motors and automobile generators. In case a generator is completely disassembled so that the shunt field is out, the brushes are out and the holders are out, how can I go about it to put in the shunt field and brushes and holders correctly? How would this be done in the case of a starting motor?—George Schweiner, 740 Cass St., Milwaukee, Wis.

THE first thing to do is to carefully look at all the parts and see where the brush holders could be installed. In two pole machines there are usually two brushes. In four pole machines there may be four main brushes or there may be two main brushes. If two main brushes are used in a four pole machine they go at 90 deg. from each other and not opposite each other. After you have the brush holders installed on the end brackets in the way that appears to be right, then put the field coils in the frame in the way they seem to go and see if the connections will reach so that you can fasten them to the brush holders. In the case of starting motors the connections are usually rather stiff so that in most cases it would be hard to put the machine together wrong and still be able to connect up the field winding.

In the case of a generator the connections are more easily reversed. Here it is helpful to know, in the case of a third brush machine, that the field winding must always be connected from a main brush to the third brush tracing in the direction of armature rotation. Wherever possible it is better to make a sketch of a generator before it is all

[READERS' CLEARING HOUSE]

taken apart, but if one is brought to you in this condition it means that you must apply your mechanical ingenuity and electrical knowledge as best you can. If a machine of this kind is assembled and it is found that it rotates in the wrong direction, it means that you must reverse the relation of field and armature. In some cases this can be done by crossing the field connections, while in other cases the brush holders can be turned 90 deg. and the connections kept the same.

What is the Noise?

I have a Chevrolet coach, model 1928, purchased Feb. 21st. It has been run 9300 miles and was broken in very carefully. I have been the only one who has driven this car, or at least it has never been driven except when I have been with it, and I know that the car has been carefully broken in. Oil was kept in the gas for 1000 miles and it was not run over 30 miles an hour for that period. It was not run over 40 miles an hour until after 1700 miles had been registered on the speedometer. After that it has been run on 200 and 300 mile trips with continuous speed of 45 and 50 miles an hour, with an occasional short burst of 60 to 65. Short trips around town average 25 and 35 miles an hour. Since this car was 4000 miles old it has developed a slight tapping sound, clear and distinct, although at first only when the engine was idling, but now it can be heard when the engine is speeded up to 20 miles an hour, but not after that. It cannot be heard at all from 25 miles an hour up. In fact, I never heard any engine run smoother. The oil has been changed every 1000 miles. At first the sound referred to was as one tap, but now it sounds like a light double tap with the second one faint and indistinct. Some Chevrolet mechanics have said that this was in the cylinder that rests on the camshaft. I think what they mean is the cam follower, the part into which the push rod rests, but we replaced them in No. 1 cylinder. This is the one from which the noise seemed to emanate. Just what in your opinion could cause this, and how can it be remedied? I shall appreciate any suggestions that you can give.—H. C. Steele, Triangle Service Station, Clarks-ville, Va.

CHARACTERISTICS of this noise lead us to believe that it is a wrist pin. It would not be unusual for a wrist pin to be a little loose after the service your car has given, and we would suggest that you try shorting out with a screw driver to see if this makes any difference. One way you can check for valve noise is to bear down on the rocker arm at the push rod side with the handle of a hammer. Hold the head of the hammer in your hand and bear down heavily on first one rocker arm at the push rod end and then another. Of course, if so doing eliminates the noise, you may be certain that there is looseness in the valve mechanism which you are working on and only an examination can determine just what parts must be replaced to silence the engine.

Effect of Corrosion

We have a case of electrical trouble on a 1918 Buick that puzzles us considerably. The generator when removed was found to have commutator and brushes in bad condition. We turned down the commutator, undercut the mica and installed new brushes. The armature was tested for ground and was found to be O. K. in that respect and field windings also were O. K.

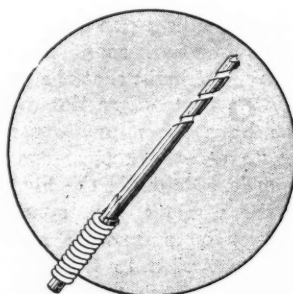
When reassembled and installed on the car it charged O. K. but there is some trouble in the ground brush, which gets hot and crumbles. The brush spring also loses its tension and gets weak. This condition also occurred before we worked on the job.—Kelly Brannan, Prop., Humboldt Battery & Elec. Co., Humboldt, Iowa.

THE condition is due to corrosion on the brush holders. Both ground brushes can be removed with a plate at the side of the motor generator. This plate carries the two grounded brushes mounted on arms swinging around a pivoted support. As constructed, the ground circuit is through the contact made by the arm on the pin on which it is mounted and in time corrosion of the surfaces causes a poor contact at this point.

SHOP KINKS

Ideas that have proved useful

OCCASIONALLY we wish to use a very fine drill in our regular power drill. We sometimes find that the shank is so fine that the chuck will not hold the drill tight. When this is the case we merely wind the shank of the drill tightly with fine wire and can then hold the drill very satisfactory.—J. T. Litzer, Auto Re-Building Co., 542 Larrabee St., Portland, Ore.



Readers of MOTOR AGE are invited to submit ideas that they have found useful in doing some particular service job in the shop in a better or quicker way. For each one published \$2.00 will be paid. Whenever possible the idea should be accompanied by a sketch or diagram from which a drawing can be made.

The remedy is to take off the grounded arm and carefully sandpaper the inside of the arm and the outside of the pin and all surfaces which make contact with each other, so as to get good electrical connection. Then, to insure a low resistance from the ground to the brush holder, solder on a flexible pigtail or shunt, one end being connected to the plate and the other to the brush holder arm. One of these shunts should attach to the starting motor brush holder arm and the other to the generator brush holder arm.

Wheels Out of Balance

I have been trying to get the shimmy out of a 62 Chrysler. This is not one of the later models and is not equipped with rubber spring shackles and other items such as are used on the latest jobs. I have put in spindle body bolts and bushings and tightened the tie rod and all steering connections. The car steers easily but when you speed it up to 35 m.p.h. it starts to shimmy. It does not shimmy on dirt or gravel road but as soon as you get on pavement it will shimmy at any speed from 35 m.p.h. up. The steering block is secure to the frame. The steering has very little play so I do not know what the trouble is. Everything seems to be OK but the shimmy is still there.—E. M. Peek, P. O. Box 185, Trilby, Fla.

YOUR problem seems to be one of unbalanced wheels or unequally inflated or under-inflated tires. We would suggest that you try 35 to 40 lbs. air pressure in the front tires. Also check to see that they are perfectly balanced. Such a thing as a vulcanized spot on the casing or the addition of a shoe in the tire would upset their balance sufficiently to cause the trouble that you have been having. There is also a possibility that you have insufficient castor to the front axle. Wedges for regulating axle inclination can be obtained from practically any Chrysler dealer and it would probably be well worth your while to try these to see if this overcomes your trouble.

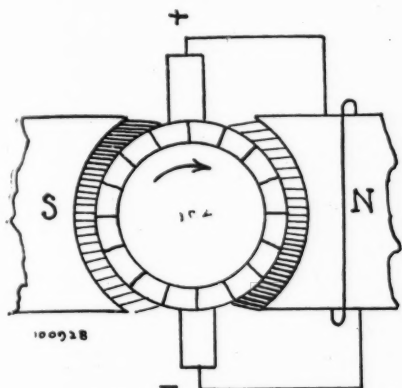
Timing a '23 Nash

I have a 1923 Nash. The timing gears have been changed from regular gears to special silent gears and these are not marked. Can you give me the valve timing of this car? The reason I wish this timing is because the car overheats in warm weather, even though we cleaned the radiator and the pump and set the timing carefully. We have also worked on the carburetor. However, this car boils at 40 to 45 m.p.h. We know the circulation is OK. Please let me have the valve timing as soon as possible.—Vogel Auto Company, Waterloo, Iowa.

THIS car should be so timed that the inlet valve opens 15 deg. after top center and the exhaust valve closes 10 deg. after top center. This adjustment should be made when the engine is thoroughly heated and a tappet clearance of .010 is provided.

[READERS' CLEARING HOUSE]

Why the Third Brush Regulates



Shifting field gives but little regulation with plain shunt generator

I would appreciate having a description of third brush regulation as used on automobile generators. I handle a great many Buick Delco motor generators, and have done considerable studying on generators and starters. I have no trouble in repairing or trouble shooting, but the third brush regulation is not clear to me.

I understand about the magnetic action between the armature and pole pieces, such as the field magnetism being twisted more and more as the speed of the armature increases, causing the pole tips in my sketch at A and B to be the strongest.

Is there a bucking effect against the current as it enters the armature at the third brush, and would the regulation be the same if the third brush were put on just the opposite side of the commutator at position 4 as shown in my sketch? Can the regulation be due to the fact that the field is connected across fewer armature coils than it would be if connected across the main brushes, and as the speed of the armature increases the voltage across which the field is connected becomes less, owing to the field being twisted? You see, I have asked the question and then tried to answer it myself. Am I on the right track?

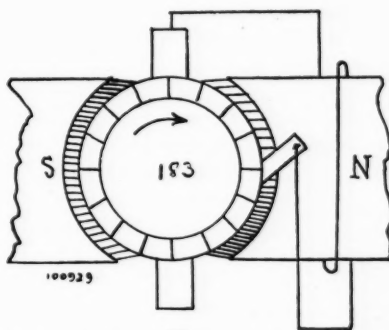
YOU are very nearly on the right track, although you strayed from the straight and narrow way when you tried to figure out a bucking effect in the current as it enters the third brush. This part of the reasoning was not correct.

The twisting or distortion of the field accounts for the regulation and we have made a couple of illustrations which we are showing in connection with the sketch you sent. In the plain shunt generator, where the field gets its current from the two main brushes, it does not make any difference whether the fields shift or not as a loss at one part of the commutator is made up by the other part of the commutator being connected to coils which are cutting through the strongest field.

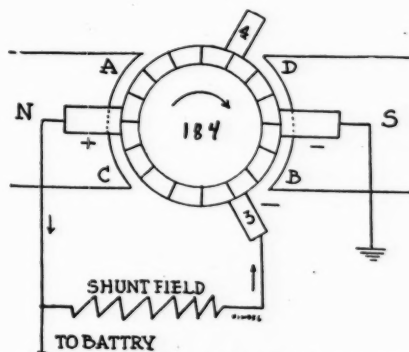
In the other illustration, however, it can be seen that, where the field is connected from a main brush to the third brush, the shifting of the field will re-

duce the voltage in those commutator bars across which the field is connected and strengthen the voltage in those bars across which the field is not connected. In this case, for example, the bars across which the field is connected might have a voltage adding up to 2 while the other bars might have a voltage adding up to 4. This would give a main voltage of 6 but the field would be only getting 1/3 of it.

In your sketch the field is not properly connected as it must always be from a main brush to the following third brush tracing in the direction of armature rotation. Your field would be correct for the reverse rotation from what you show. On the other hand the No. 4 third brush location would be correct if you connected your fields from positive brush to No. 4 brush and then ran the armature clockwise as shown by the arrow in your sketch.



Shifting field does regulate when third brush is used



Subscriber's sketch of third brush generator

Tight Pistons Cause Overheating

We have a late 1925 Dodge coupe here that runs hot when it is driven over 35 miles an hour. This car has 55,000 miles on it and seems to be in perfect shape except for overheating. It never ran hot until it had 50,000 miles on it and at that time the owner says that he had over-oversize pistons put in and he thinks they put one inner ring on each piston. We have checked the timing and ground the valves, and cleaned the radiator out by taking the upper tank off. We

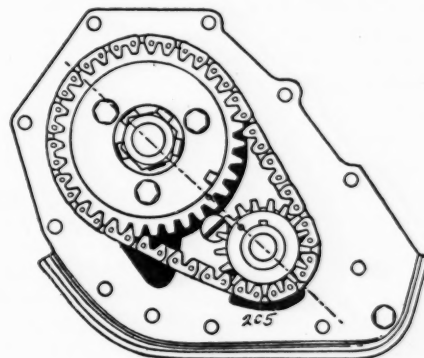
have taken the water pump apart for examination, put on a new water hose and tightened the fan belt. We have adjusted the carburetor several different ways. The heating continues. The car has a five-tube thick radiator on it. The owner says that he does not know what oversize the pistons were that were put in, but says that they used a hone for the work. Is it possible that the cooling capacity of this radiator is not great enough for the increased bore? We will appreciate any light that you can give us on this subject.—E. E. Pipkin, Tourist Service Station, 115 W. Savannah Ave., Valdosta, Ga.

OF one thing you may be sure and that is the increase in bore is not causing the overload on your cooling system. At the most the bore has not been enlarged over .010 in., while in all probability it has only been enlarged .005 in. We suspect that the trouble is due to fitting the pistons too close or to using an inner ring that is too "energetic." In other words, it seems that you have cylinder wall friction which is producing heat. After running the engine until it is thoroughly heated it would be well to take hold of the crank to see if it is considerably tighter than when cold. If it is tighter you may be sure that the pistons and rings are too tight a fit.

Pontiac Timing

I have a Pontiac roadster late 1927 model that is out of time. I am not referring to the ignition. What I want to know is how do you check up on the valve timing?—G. F. Murray, Continental Garage, Parker, Colo.

WE are showing an illustration which will give you a good idea of how the valve timing is checked. If you suspect that your timing chain has jumped or that it has been put on incorrectly, the thing to do is to remove



the engine front cover. Then turn the engine until the two punch marks on the gears are in line with the crankshaft and camshaft setting points as shown. It may be necessary to jump the chain a tooth or two one way or the other in order to make this come out correctly.

[READERS' CLEARING HOUSE]

Shock Absorber Service

How do you adjust the Watson Stabilators, type C-7. I want complete servicing information on these as I am located far from any authorized service station.—L. Vilatts, Salem, Ore.

WATSON Stabilators must NOT be lubricated and the factory strongly advises the lubrication of chassis springs and the installation of spring covers. Shackle bolts should be carefully adjusted so that they will not bind.

To change the adjustment on the type C-7 Watson Stabilator, place the car on a level floor. The car should be fully equipped, but with no passengers or extra load. First inspect the position of the brass eyelet in the strap to see that it is level with the horizontal center line of the Stabilator, or about $\frac{1}{2}$ in. below the top of the window opening. Be sure not to confuse the eyelet with the brass tag, which is of about the same diameter. If the eyelet is above this position, the Stabilator braking effect is too great and will cause stiff or hard riding. If the eyelet is below this position, the braking effect will not be great enough to control the recoil of the car spring.



Watson Stabilator disassembled to show various parts

The position of the eyelet is governed entirely by the way the strap is attached to the car axle. Before this can be changed, it is necessary to unwind the Stabilator spring. When unwinding this spring always use the special Stabilator wrench which is made to fit in the slots in each corner of the hexagonal adjusting nut. The adjusting nut is covered with a hexagonal steel cap, held in place by a small machine screw. When this has been removed, screw this screw into the locking pin so that it is possible to get hold of the pin to pull it out. This pin is locked in place by a shoulder on the inner end. When the adjusting nut is turned slightly in the direction of the arrow on the nut, the pin is released.

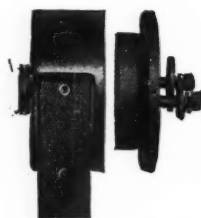
There are six holes in the cover for this pin so that the spring winding may be varied by one-sixth of a turn. With a firm grip on the adjusting nut wrench, pull the pin out slightly (taking care to keep the end of the pin in

the hole) and allow the nut to turn backward (opposite to the direction of the arrow) one-sixth of a turn until the locking pin can be placed in the next hole. Follow this procedure until the tension on the spring is entirely released. Do not turn the nut backward beyond the point where it stops or the spring will be broken.

With the spring completely unwound correct the position of the eyelet by detaching the strap from the axle and then reclamp so that the eyelet is one-half in. below the top of the cover opening when the strap is taut. This should be checked by winding the spring one-third turn before tightening the clamp. When correct, tighten strap clamp at axle securely and as close to the axle as possible. Place tension on spring by means of the adjusting wrench.

The correct tension is secured by a spring balance, hooked in the hole provided in the handle of the adjusting wrench. There is a certain amount of play provided in the locking pin which permits weighing the adjustment without removing the pin. In cases where a spring balance is not available a fairly satisfactory adjustment may be secured by turning the adjusting nut five or six notches for front Stabilators and seven, eight or nine notches for those on the rear. Both Stabilators on the front should be given the same adjustment and the rear Stabilators should also be adjusted equally.

The standard tension and exceptions to this standard for various cars, together with the lap is listed herewith. By lap is meant the distance in inches from the eyelet in the strap to the nearest strap hook rivet. This measurement is used when ordering and installing new straps.



Note position of eyelet with respect to top of opening.

To replace a broken Stabilator spring, as indicated by a loose strap, remove the Stabilator from the chassis and remove the six cover screws. Pull off the cover and disconnect the strap from the brake shoe. Hold cover with open side down and shake or tap gently

on the work bench until the shoe and spring slide out together.

Standard Spring Tensions and Laps

| | | |
|------------|--------------|-----------|
| Front..... | 32 to 33 lb. | 6 in. lap |
| Rear..... | 26 to 27 lb. | 4 in. lap |

Exception to Standard

| | Tension Lb. | | —L a p— | |
|------------------------|-------------|------|---------|------|
| | Front | Rear | Front | Rear |
| Cadillac 63..... | 33 | 27 | 5½ | 4 |
| Chrysler 80..... | 34 | 29 | 7 | 5 |
| Chrysler 70..... | 33 | 27 | 5½ | 4 |
| Dodge Senior Six.... | 28 | 18 | 6 | 4 |
| Gardner 90..... | 28 | 24 | 6 | 4 |
| Hupmobile 8..... | 34 | 24 | 6 | 4 |
| La Salle..... | 32 | 28 | 6 | 4 |
| Locomobile, Jr. 8.... | 30 | 25 | 6 | 4 |
| Locomobile 80..... | 34 | 24 | 6 | 5½ |
| Jordan 8, Model A.... | 36 | 28 | 6 | 4 |
| McFarlan..... | 34 | 27 | 6 | 4 |
| Nash Advanced Six.. | 38 | .. | 6½ | .. |
| Packard 1-36, 1-43.. | 37 | 28 | 6½ | 4 |
| Packard 3-36, 3-43.. | 26 | 21 | 6 | 4 |
| Packard 4-26, 4-28.. | 26 | 21 | 6 | 4 |
| Peerless 6-90, 8-69.. | 34 | .. | 6 | .. |
| All Ex. Coupe & Road.. | 28 | .. | .. | 4 |
| Coupe and Roadster.. | 20 | .. | .. | 4 |
| Stearns-Knight..... | 34 | 24 | 7 | 4 |
| Studebaker Big Six.. | 34 | 25 | 6 | 4 |
| Stutz Eight..... | 34 | 28 | 5½ | 4 |

Never adjust front springs over 38 and rear springs over 30 lb.

To install a new spring, hold the shoe on one hand and grasp the spring with the other and hook it into the brake shoe through the gap while turning the spring so that the hook will catch it in its proper place. Reassemble the Stabilator and adjust according to previous instructions. Care should be taken to see that the weatherproof seal (which is a piece of rubberized fabric placed between the shoe backing and the brake shoe) bears evenly all around against the cover and the base. This can be observed by turning the adjusting nut in the direction of the arrow one complete turn before the strap is attached to the brake shoe. If the weatherproof seal does not bear evenly all around, it can be adjusted with a knife blade or some other pointed tool.

Should noise develop in a Stabilator, it can be remedied by disassembling the Stabilator and renewing the inserts in the brake shoe. At the same time clean the brake drums thoroughly with sandpaper and gasoline. Be careful NOT to get any grease on the brake drum or any portion of the Stabilator.

Transmission and Differential Lubricant

Generally speaking, is a semi-solid grease or a semi-fluid one better for use in the transmission and differential of different cars?

—John G. Egan, Jr., 1635 Clay St., Topeka, Kan.

GENERALLY speaking, a semi-fluid lubricant or heavy steam cylinder oil is preferable for transmission and rear end lubrication.

Prices, Weights and Equipment of Current Passenger Car Models

Important changes in Specifications and Price Tables since last issue:

AUBURN
Two New Victorias

LA SALLE
Body Models

PEERLESS "6-60"
Engine Specifications

VELIE
1929 Body Models

| Passengers and Model | | | | | F.O.B. Price | Doors | Net Weight* | Standard Equipment |
|----------------------|--------|-------|-------|-------------|--------------|-------|-------------|--------------------|
| CADILLAC "341" | | | | | | | | |
| "Fisher" | | | | | | | | |
| 2p. Roadster.... | \$3350 | 2 | 4690 | aeghlmnprx | | | | |
| 4p. Phaeton.... | 3450 | 4 | 4725 | aeghlmnprx | | | | |
| 4p. Sp. Phaeton.... | 3950 | 4 | ..... | Beghiklnmp | | | | |
| 7p. Touring..... | 3450 | 4 | 4760 | aeghlmnprx | | | | |
| 2-4p. Coupe.... | 3295 | 2 | 4930 | aeghlmnprx | | | | |
| 2-4p. Conv. Coup. | 3595 | 2 | 4835 | aeghlmnprx | | | | |
| 5p. Coupe..... | 3595 | 2 | 4910 | aeghlmnprtx | | | | |
| 5p. Sedan..... | 3695 | 4 | 5040 | aeghlmnprtx | | | | |
| 5p. Town Sedan. | 3495 | 4 | 5030 | aeghlmnprux | | | | |
| 7p. Sedan..... | 3795 | 4 | 5140 | aeghlmnprtx | | | | |
| 7p. Imp. Sedan.. | 3995 | 4 | 5180 | aeghlmnprtx | | | | |
| "Fleetwood" | | | | | | | | |
| 5p. Sedan..... | \$4195 | 4 | ..... | aeghlmnprtx | | | | |
| 5p. Sedan Cab.. | 4195 | 4 | ..... | aeghlmnprtx | | | | |
| 7p. Sedan..... | 4295 | 4 | ..... | aeghlmnprtx | | | | |
| 7p. Sedan Cab.. | 4195 | 4 | ..... | aeghlmnprtx | | | | |
| 5p. Imperial.... | 4345 | 4 | ..... | aeghlmnprtx | | | | |
| 5p. Imperial Cab | 4345 | 4 | ..... | aeghlmnprtx | | | | |
| 7p. Imperial.... | 4345 | 4 | ..... | aeghlmnprtx | | | | |
| 5p. Club Cab't. | 4395 | 2 | ..... | aeghlmnprtx | | | | |
| 5p. Phaeton Sed. | 5750 | 4 | ..... | aeghlmnprtx | | | | |
| 5p. Im. Pha. Sed. | 5995 | 4 | ..... | aeghlmnprtx | | | | |
| 5p. Town Cab Con. | 5250 | 4 | ..... | aeghlmnprtx | | | | |
| 5p. Town Cab Con. | 5500 | 4 | ..... | aeghlmnprtx | | | | |
| 5p. Lim Bro'm Con. | 5500 | 4 | ..... | aeghlmnprtx | | | | |
| CHANDLER | | | | | | | | |
| "65" | | | | | | | | |
| 5p. Touring..... | \$ 895 | 4 | ..... | ahmn | | | | |
| 5p. Sportster.... | 895 | 2 | ..... | ahmn | | | | |
| 3p. Coupe..... | 875 | 2 | ..... | ahmn | | | | |
| 5p. Sedan..... | 895 | 4 | ..... | ahmn | | | | |
| 2-4p. Coupe.... | 955 | 2 | ..... | ahmn | | | | |
| 5p. DeL. Sedan.. | 995 | 4 | ..... | ahmn | | | | |
| 2-4p. Cabriolet. | 1075 | 2 | ..... | ahmn | | | | |
| "Royal 75" | | | | | | | | |
| 5p. Sedan, 2d.. | 1295 | 2 | ..... | ahmn | | | | |
| 2-4p. Coupe.... | 1295 | 2 | ..... | ahmn | | | | |
| 5p. Sedan, 4d.. | 1395 | 4 | ..... | ahmn | | | | |
| 5p. DeL. Sedan. | 1495 | 4 | ..... | ahmn | | | | |
| "Big Six" | | | | | | | | |
| 7p. Touring..... | 1725 | 4 | 3369 | ahjlmnw | | | | |
| 5p. Met. Sedan.. | 1525 | 4 | 3800 | ahmnt | | | | |
| 4p. Coupe..... | 1725 | 2 | 3535 | ahmnt | | | | |
| 3p. Ctry. Club.. | 1725 | 2 | 3535 | ahmnt | | | | |
| 5p. Royal Sedan. | 1725 | 4 | 3800 | ahmnt | | | | |
| 2-4p. Cabriolet. | 1825 | 2 | 3450 | ahmnt | | | | |
| 7p. Sedan..... | 1925 | 4 | 3895 | ahmnt | | | | |
| 7p. Berline Sed. | 2025 | 4 | 3945 | ahmnt | | | | |
| "Royal 85" | | | | | | | | |
| 7p. Touring..... | 1995 | 4 | 3655 | ahjlmnw | | | | |
| 4p. Coupe..... | 1925 | 2 | 3640 | ahmnt | | | | |
| 4p. Ctry. Club.. | 1925 | 2 | 3640 | ahmnt | | | | |
| 5p. Sedan..... | 1795 | 4 | 3900 | ahmnt | | | | |
| 7p. Sedan..... | 2195 | 4 | 3950 | ahmnt | | | | |
| 3-5p. Cabriolet. | 2095 | 2 | 3600 | ahmnt | | | | |
| 5p. DeL. Sedan. | 1995 | 4 | 4005 | Bhilmnopr | | | | |
| 7p. Berline Sed. | 2295 | 4 | 4000 | Bhilmnopr | | | | |
| CHEVROLET | | | | | | | | |
| 2p. Roadster.... | \$495 | 2 | 2030 | dr | | | | |
| 5p. Touring..... | 495 | 4 | 2090 | dr | | | | |
| 5p. Coach..... | 585 | 2 | 2360 | dhr | | | | |
| 2p. Coupe..... | 595 | 2 | 2235 | dhr | | | | |
| 5p. Sedan..... | 675 | 4 | 2435 | dhr | | | | |
| 2-4p. Con. Sp. Cab | 695 | 2 | 2265 | dhr | | | | |
| 5p. Imperial.... | 715 | 4 | 2405 | dhr | | | | |
| CHRYSLER | | | | | | | | |
| "65" | | | | | | | | |
| 2-4p. Roadster.. | \$1065 | 2 | 2730 | aghn | | | | |
| 5p. Touring..... | 1075 | 4 | 2770 | aghn | | | | |
| 2p. Bus. Coupe.. | 1040 | 2 | 2780 | aghn | | | | |
| 5p. Sedan, 2d.. | 1065 | 2 | 2905 | aghn | | | | |
| 5p. Sedan, 4d.. | 1145 | 4 | 2960 | aghn | | | | |
| 2-4p. Coupe.... | 1145 | 2 | 2875 | aghn | | | | |
| "75" | | | | | | | | |
| 2-4p. Roadster.. | 1555 | 2 | 3190 | aeghlmn | | | | |
| 2-4p. Coupe.... | 1535 | 2 | 3235 | aeghlmn | | | | |
| 5p. Royal Sedan. | 1535 | 4 | 3340 | aeghlmn | | | | |
| 4-5p. Town Sedan | 1655 | 4 | 3360 | aeghlmn | | | | |
| Imp. "80" | | | | | | | | |
| 2-4p. Roadster.. | \$2795 | 3 | 3870 | aeghlmnw | | | | |
| 5p. Sedan..... | 2945 | 4 | 4125 | aeghlmnprx | | | | |
| 7p. Sedan..... | 3075 | 4 | 4250 | aeghlmnprtx | | | | |
| 5p. Town Sedan. | 2995 | 4 | 4140 | aeghlmnprtx | | | | |
| 7p. Sedan Lim.. | 3495 | 4 | 4285 | aeghlmnprtx | | | | |
| CUNNINGHAM | | | | | | | | |
| "V.7" | | | | | | | | |
| 4p. Sp. Touring.... | \$6500 | 4 | 4500 | Ceghjklnmp | | | | |
| 7p. Touring..... | 7000 | 4 | 4600 | Ceghjklnmp | | | | |
| 4p. Coupe..... | 8000 | 2 | 4700 | Ceghjklnmp | | | | |
| 6p. Limousine.... | 8500 | 4 | 5000 | Ceghjklnmp | | | | |
| DAVIS "99" | | | | | | | | |
| 4p. Polo Rdster.. | \$1795 | 2 | 3295 | aeghmnr | | | | |
| 5p. Touring..... | 1795 | 4 | 3325 | aeghmnr | | | | |
| 4p. Coupe..... | 1865 | 2 | 3345 | aeghmnr | | | | |
| 5p. Emp. Sedan.. | 1885 | 4 | 3475 | aeghmnr | | | | |
| DE SOTO | | | | | | | | |
| 2-4p. Roadster .. | \$845 | 2 | 2635 | ghnw | | | | |
| 5p. Phaeton..... | 845 | 4 | 2445 | ghn | | | | |
| 2-4p. Roadster .. | 880 | 2 | 2390 | B | | | | |
| 2p. Bus. Coupe.. | 845 | 2 | 2665 | ghn | | | | |
| 5p. Sedan..... | 845 | 2 | 2580 | ghn | | | | |
| 5p. Sedan..... | 885 | 4 | 2640 | ghn | | | | |
| DIANA "St. 8" | | | | | | | | |
| 5p. Phaeton..... | \$1695 | 4 | 3100 | agmn | | | | |
| 5p. Roy. Rdster.. | 1795 | 2 | 2995 | agmn | | | | |
| 5p. P.B. Rdster.. | 1895 | 2 | 2995 | Bgmw | | | | |
| 5p. Cab. Rdster.. | 1995 | 2 | 3160 | agmn | | | | |
| 5p. Collap. Rdster. | 2195 | 2 | 3160 | agmn | | | | |
| 5p. 2d. Sedan... | 1795 | 2 | 3170 | aghmno | | | | |
| 5p. 4d. Sedan... | 2095 | 4 | 3275 | aghmnot | | | | |
| DODGE BROS. | | | | | | | | |
| "Std. 6" | | | | | | | | |
| 2-4p. Conv't Cab. | \$945 | 2 | 2570 | Bghr | | | | |
| 2p. Coupe..... | 875 | 2 | 2490 | aghr | | | | |
| 5p. Sedan..... | 895 | 4 | 2710 | aghr | | | | |
| 5p. Sedan DeL.. | 970 | 4 | 2780 | aghr | | | | |
| 5p. Sp. Sed. DeL. | 1045 | 4 | ..... | Beghikr | | | | |
| "Victory 6" | | | | | | | | |
| 5p. Touring..... | 995 | 4 | 2775 | aghmnr | | | | |
| 5p. Sp. Touring.. | 1245 | 4 | ..... | Beghikmr | | | | |
| 4p. Sp. Roadster | 1245 | 2 | ..... | Beghikmr | | | | |
| 2p. Coupe..... | 1045 | 2 | 2650 | aghmnr | | | | |
| 4p. Coupe DeL.. | 1170 | 2 | 2850 | Beghjanrt | | | | |
| 5p. Sedan..... | 1095 | 4 | 2855 | aghmnr | | | | |
| 4p. Brougham.... | 1095 | 2 | 2750 | aghmnr | | | | |
| 4p. DeL. Bro'm. | 1170 | 2 | 2850 | Beghjanrt | | | | |
| 5p. DeL. Sedan.. | 1170 | 4 | 2955 | aghmnr | | | | |
| 5p. Sp. Sedan... | 1295 | 4 | 3150 | Beghikmr | | | | |
| "Senior" | | | | | | | | |
| 5p. Vic. Bro'm.. | 1575 | 2 | ..... | agmnp | | | | |
| 5p. Sedan..... | 1675 | 4 | ..... | agmnp | | | | |
| 2-4p. Coupe.... | 1675 | 2 | ..... | agmnp | | | | |
| 5p. Sport Sed.. | 1745 | 4 | ..... | Bgikmnp | | | | |
| 2-4p. Sp. Coupe. | 1795 | 2 | ..... | Bgikmnp | | | | |
| 5p. Landau Sed.. | 1845 | ..... | ..... | Bgikmnp | | | | |
| du PONT "E" | | | | | | | | |
| 4p. Roadster.... | \$2800 | ..... | 3700 | afghklnprx | | | | |
| 5p. Touring..... | 2800 | 4 | 3850 | afghklnprx | | | | |
| 4p. Coupe..... | 3200 | ..... | 3850 | afghklnprtx | | | | |
| 4p. Conv't Coupe. | 3400 | 2 | 3900 | afghklnprtx | | | | |
| 5p. Sedan..... | 3400 | 4 | 4100 | afghklnprtx | | | | |
| 5p. Sedan..... | 3750 | 4 | 4100 | Bfghklnprtx | | | | |
| "8" | | | | | | | | |
| 141 W.B. | ..... | ..... | ..... | ..... |  |  |  |  |
| Roadster.. | \$4360 | ..... | ..... | Beghikprx | | | | |
| Sp. Phaeton.. | 4560 | ..... | ..... | Beghikprx | | | | |
| 7p. Touring..... | 4560 | ..... | ..... | aeghikprx | | | | |
| Conv. Coupe.. | 4360 | ..... | ..... | aeghikprx | | | | |
| Club Sedan.. | 4360 | ..... | ..... | aeghikprx | | | | |
| 5p. Sedan..... | 4410 | ..... | ..... | aeghikprx | | | | |
| 5p. Victoria.... | 4410 | ..... | ..... | aeghikprx | | | | |
| 5p. Limousine.... | 4475 | ..... | ..... | aeghikprx | | | | |
| 7p. Sedan..... | 4675 | ..... | ..... | aeghikprx | | | | |
| 7p. Limousine.... | 4875 | ..... | ..... | aeghikprx | | | | |
| Conv. Sedan. | 5150 | ..... | ..... | Beghikprx | | | | |
| Town Cab... | 5750 | ..... | ..... | aeghikprx | | | | |
| DURANT | | | | | | | | |
| "Four" | | | | | | | | |
| Roadster... | \$595 | ..... | 1950 | ah | | | | |
| Coupe..... | 595 | ..... | 2185 | ah | | | | |
| 5p. Sedan..... | 595 | 2 | 2330 | ah | | | | |
| 5p. Sedan..... | 695 | 4 | 2480 | ah | | | | |
| 2-4p. Conv. Cab. | ..... | ..... | 2210 | ahr | | | | |
| "55" | | | | | | | | |
| 2p. Coupe..... | 795 | ..... | 2395 | ah | | | | |
| 5p. Sedan..... | 795 | ..... | 2385 | ah | | | | |
| 5p. Brougham.... | 895 | ..... | 2425 | ah | | | | |
| "65" | | | | | | | | |
| 5p. Touring..... | 795 | 4 | 2385 | aghmn | | | | |
| 2-4p. Sp. Rdster | 1025 | 2 | 2385 | Beghikmn | | | | |
| 2-4p. Collap. Cab. | \$1045 | 2 | 2525 | aghmn | | | | |
| 2-4p. Coupe.... | 975 | 2 | 2425 | aghmn | | | | |
| 5p. Sedan..... | 975 | 2 | 2600 | aghmn | | | | |
| 5p. Sedan..... | 1075 | 4 | 2675 | aghmn | | | | |
| 5p. Brougham.... | 1175 | 4 | 2695 | Beghikmn | | | | |
| "75" | | | | | | | | |
| 5p. Sedan..... | 1385 | 4 | 3130 | aghmn | | | | |
| 5p. Brougham.... | 1550 | 4 | 3180 | Beghikmn | | | | |
| ELCAR | | | | | | | | |
| "6-70" | | | | | | | | |
| 4p. Roadster.... | \$1295 | 2 | 2580 | ahnr | | | | |
| 5-7p. Touring... | 1295 | ..... | 2580 | ahnr | | | | |
| 5p. Brougham.... | 1295 | 2 | 2670 | ahnr | | | | |
| 5p. Sedan..... | 1295 | 4 | 2750 | ahnr | | | | |
| "8-78" Std. | | | | | | | | |
| 2-4p. Roadster... | 1395 | 2 | ..... | ahnr | | | | |
| 5p. Touring..... | 1395 | ..... | ..... | ahnr | | | | |
| 2-4p. Coupe.... | 1395 | 2 | ..... | ahnr | | | | |
| 5p. Sedan..... | 1395 | 4 | ..... | ahnr | | | | |
| "8-78 Royal" | | | | | | | | |
| 4p. Roadster.... | 1495 | ..... | ..... | aeghmnr | | | | |
| 5p. Touring..... | 1495 | ..... | ..... | aeghmnr | | | | |
| 4p. Coupe..... | 1495 | ..... | ..... | aeghmnr | | | | |
| 5p. Sedan..... | 1495 | ..... | ..... | aeghmnr | | | | |
| "8-92" | | | | | | | | |
| 5-7p. Touring... | 1695 | ..... | ..... | aeghmnr | | | | |
| 2-4p. Roadster... | 1695 | 2 | ..... | aeghmnr | | | | |
| 4p. Coupe..... | 1695 | 2 | ..... | aeghmnr | | | | |
| 5p. Std. Sedan.. | 1695 | 4 | 3490 | aeghmnr | | | | |
| 5p. Prin. Sedan.. | 1895 | 4 | ..... | aeghmnr | | | | |
| 2-4p. Roadster... | | | | | | | | |
| 4p. Coupe..... | 1995 | ..... | ..... | aeghmnr | | | | |
| 5p. Prin. Bro'm.. | 2295 | 4 | ..... | aeghmnr | | | | |
| 5p. Prin. Sedan.. | 2295 | 4 | ..... | aeghmnr | | | | |
| "120" | | | | | | | | |
| 5-7p. Touring... | 2465 | 4 | ..... | aghmnr | | | | |
| 5p. Std. Sedan.. | 2465 | 4 | ..... | aghmnr | | | | |
| 7p. Std. Sedan.. | 2565 | 4 | ..... | aghmnr | | | | |
| ERSKINE SIX | | | | | | | | |
| "52" | | | | | | | | |
| 5p. Touring..... | \$835 | 4 | ..... | aghr | | | | |
| 5p. Club Sedan.. | 860 | 2 | ..... | aghr | | | | |
| 2p. Cabriolet.... | 875 | 2 | ..... | aghr | | | | |
| 5p. Sedan..... | 945 | 4 | 2600 | aghr | | | | |
| 4p. Royal Cab... | 995 | 2 | ..... | Bghikr | | | | |
| 5p. Royal Sedan. | 1045 | 4 | 2600 | Bghikr | | | | |
| ESSEX | | | | | | | | |
| "Super Six" | | | | | | | | |
| 5p. Phaeton..... | \$750 | 4 | 2305 | ahmr | | | | |
| 2-4p. Roadster... | 850 | 2 | 2365 | ahmr | | | | |
| 2-4p. Coupe.... | 775 | 2 | 2535 | ahmr | | | | |
| 5p. Sedan..... | 795 | 4 | 2680 | ahmr | | | | |
| 5p. Coach..... | 735 | 2 | 2550 | ahmr | | | | |
| FALCON-KNIGHT | | | | | | | | |
| "12" | | | | | | | | |
| 5p. Touring..... | 995 | ..... | 2900 | ..... |  |  |  |  |
| 4p. G.G. Rdster. | 1195 | ..... | 2735 | Beghikmn | | | | |
| 5p. Sedan..... | 995 | 2 | 2800 | ghnr | | | | |
| 2-4p. Coupe.... | 1045 | ..... | 2800 | ghnr | | | | |
| 5p. Sedan..... | 1095 | 4 | 2875 | ghnr | | | | |
| FORD "A" | | | | | | | | |
| 2-4p. Roadster... | \$385 | 2 | ..... | Bgr | | | | |
| 5p. Phaeton.... | 395 | 4 | ..... | Bgr | | | | |
| 2p. Bus. Coupe.. | 495 | 2 | ..... | Bghnr | | | | |
| 5p. Tudor Sedan | 495 | 2 | ..... | Bghnr | | | | |
| 2-4p. Conv. Coupe. | 550 | 2 | ..... | Bghnr | | | | |
| 5p. Std. Coupe.. | 550 | 2 | ..... | Bghnr | | | | |
| 5p. Fordor Sedan | 625 | 4 | ..... | Bghnr | | | | |

Prices, Weights and Equipment of Current Passenger Car Models

| Passengers and Model | F.O.B. Price | Doors | Net Weight | Standard Equipment |
|---------------------------------------------|-----------------|-------|------------|-----------------------|
| FRANKLIN "Series 12 B 119 W.B. | | | | |
| 3p. Coupe..... | | | | aeghklmnrpx |
| 4-5p. Vic. Bro'm..... | \$2760 | 3550 | | aeghklmnrpx |
| 5p. Sedan..... | 2790 | 3590 | | aeghklmnrpx |
| 5p. Ox. Sedan..... | 2790 | 3580 | | aeghklmnrpx |
| 5p. Spt. Sedan..... | 2910 | 3630 | | aeghklmnrpx |
| 3-5p. Con/vt Cpe. 128" W.B. | 2850 | 3510 | | aeghklmnrpx |
| 2-4p. Sp. Runab't..... | 2975 | 3440 | | aeghklmnrpx |
| 5p. Sp. Touring..... | 2975 | 3630 | | aeghklmnrpx |
| 7p. Touring..... | 3060 | 3630 | | aeghklmnrpx |
| 7p. Sedan..... | 2980 | 3790 | | aeghklmnrpx |
| 5p. Ox. Sedan..... | 2980 | 3790 | | aeghklmnrpx |
| 7p. Limousine..... | 3080 | 3870 | | aeghklmnrpx |
| GARDNER "120" | | | | |
| 4p. Roadster..... | \$1395 | 22995 | | aghmnr |
| Sedan..... | 1595 | | | aghmnr |
| Cabriolet..... | 1495 | | | aghmnr |
| Sport Sedan..... | 1295 | | | aghmnr |
| 4p. Roadster..... | 1895 | 23040 | | aeghmnrpx |
| Cabriolet..... | 1795 | | | aeghmnrpx |
| 5p. Bro'm 4d..... | 1875 | 43380 | | aeghmnrpx |
| 5p. Sedan..... | 1895 | 43380 | | aeghmnrpx |
| Victoria..... | 1895 | | | aeghmnrpx |
| 2-4p. Roadster..... | 2195 | 3440 | | aeghmnrpx |
| Cabriolet..... | 2295 | | | aeghmnrpx |
| 5p. Brougham..... | 2375 | 43750 | | aeghmnrpx |
| 5p. Sedan..... | 2395 | 43750 | | aeghmnrpx |
| Victoria..... | 2395 | | | aeghmnrpx |
| GRAHAM-PAIGE "610" | | | | |
| 2p. Coupe..... | \$860 | 22565 | | aghmnr |
| 5p. Sedan..... | 875 | 42825 | | aghmnr |
| "614" | | | | |
| 4p. Phaeton..... | 1435 | 23140 | | aeghmnrpx |
| 4p. Coupe..... | 1275 | 23150 | | aeghmnrpx |
| 5p. Sedan..... | 1295 | 43240 | | aeghmnrpx |
| "619" | | | | |
| 4p. Phaeton..... | 1745 | 23595 | | aeghmnrpx |
| 4p. Coupe..... | 1575 | 23645 | | aeghmnrpx |
| 5p. Sedan..... | 1595 | 43775 | | aeghmnrpx |
| "629" | | | | |
| 7p. Phaeton..... | 2110 | | | Deghjlmnp |
| 5p. Sedan..... | 1985 | 44070 | | Deghjlmnp |
| 5p. Town Sedan..... | 2085 | 44155 | | Deghjlmnp |
| 5p. Coupe..... | 2085 | 4005 | | Deghjlmnp |
| 7p. Sedan..... | 2110 | 44150 | | Deghjlmnp |
| 2-4p. Cabriolet..... | 2185 | 23930 | | e |
| 2-4p. Coupe..... | 2185 | 23965 | | e |
| "835" | | | | |
| 7p. Phaeton..... | 2410 | | | Deghjlmnp |
| 5p. Sedan..... | 2285 | 44160 | | Deghjlmnp |
| 5p. Coupe..... | 2385 | 4130 | | Deghjlmnp |
| 5p. Town Sedan..... | 2385 | 44155 | | Deghjlmnp |
| 7p. Sedan..... | 2410 | 44290 | | Deghjlmnp |
| 2-4p. Cabriolet..... | 2485 | 4085 | | Deghjlmnp |
| 2p. Coupe..... | 2485 | 24060 | | Deghjlmnp |
| HUDSON "118" W.B. | | | | |
| 2-4p. Roadster..... | \$1295 | 3355 | | ahmnr |
| 2-4p. Coupe..... | 1295 | 23525 | | ahmnr |
| 5p. Coach..... | 1250 | 23575 | | ahmnr |
| 5p. Sedan..... | 1325 | 43645 | | ahmnr |
| 127" W.B. | | | | |
| 7p. Phaeton..... | 1650 | 43630 | | ahmnr |
| 5p. Landau Sed..... | 1650 | 43605 | | ahmnr |
| 5p. Std. Sedan..... | 1450 | 4750 | | ahmnr |
| 4p. Victoria..... | 1650 | 23710 | | ahmnr |
| 7p. Sedan..... | 1950 | 43945 | | ahmnr |
| HUPMOBILE "Century 6" | | | | |
| 5p. Phaeton..... | \$1425 | 2900 | | aghmr |
| 2-4p. Sportster..... | 1435 | 22820 | | aghmr |
| 7p. Phaeton..... | 1455 | 42955 | | aghmr |
| 5p. Sedan 2d..... | 1345 | 22975 | | aghmr |
| 4p. Coupe..... | 1385 | 22965 | | aghmr |
| 5p. Sedan..... | 1395 | 43040 | | aghmr |
| 2-4p. Cabriolet..... | 1475 | 2965 | | aghmr |
| "Century 8" | | | | |
| 5p. Phaeton..... | 1905 | 3285 | | aghmrv |
| 2-4p. Sportster..... | 1915 | 3335 | | aghmrv |
| 7p. Phaeton..... | 1935 | 3355 | | aghmrv |
| 5p. Sedan, 2d..... | 1825 | 23385 | | aghmrv |
| 4p. Coupe..... | 1865 | 3375 | | aghmrv |
| 5p. Sedan, 4d..... | 1875 | 43455 | | aghmrv |
| 2-4p. Cabriolet..... | 1955 | 3345 | | aghmrv |
| JORDAN "Cross City 6" | | | | |
| 4p. Blue Boy..... | \$1495 | 42800 | | Beghkmnrpx |
| 4p. Spt. Saloon..... | 1295 | 22775 | | aghmnrpx |
| 2-4p. Tomboy..... | 1395 | 22650 | | aghmnrpx |
| 5p. Sedan..... | 1395 | 42775 | | aghmnrpx |
| "JE" | | | | |
| 4p. Collap Coupe..... | 1995 | 23185 | | aghmnrpx |
| 4p. Perm. Coupe..... | 1995 | 23185 | | aghmnrpx |
| 5p. Victoria..... | 1995 | 23275 | | aghmnrpx |
| 5p. Sedan..... | 1995 | 43300 | | aghmnrpx |
| 5p. Land. Bro'm..... | 1995 | | | aghmnrpx |
| KISSEL "6-73" | | | | |
| 4p. Cnv. Cp. Rtr..... | \$1695 | 2 | | eghmprvx |
| 5p. Broug. Sedan..... | 1595 | 4 | | eghmprvx |
| 4p. Coupe Rdstr..... | 1695 | | | eghmprvx |
| 5p. Sedan..... | 1695 | 4 | | eghmprvx |
| "8-95" | | | | |
| 7p. Touring..... | 2095 | | | eghmprvx |
| 4p. Speedster..... | 2195 | 2 | | eghmprvx |
| 4p. Tourster..... | 2195 | | | eghmprvx |
| 5p. Broug. Sedan..... | 1995 | 4 | | eghmprvx |
| 4p. Cp. Rdstr..... | 2095 | | | eghmprvx |
| 5p. Sedan..... | 2095 | 4 | | eghmprvx |
| 4p. Cv. Cp. Rdtr..... | 2095 | | | eghmprvx |
| 5p. Rrougham..... | 2595 | | | eghmprvx |
| 7p. Sedan..... | 2595 | 4 | | eghmprvx |
| "8-126" | | | | |
| 4p. Tourster..... | 3275 | 4 | | Beghmpr |
| 4p. Speedster..... | 3275 | 2 | | Beghmpr |
| 4p. Cv. Cp. Rdtr..... | 3185 | 2 | | Beghmpr |
| 4p. Cp. Rdstr..... | 3185 | 2 | | Beghmpr |
| 5p. Brougham..... | | | | Beghmpr |
| All Year..... | 3185 | 2 | | Beghmpr |
| 5p. Brou. Sedan..... | 3275 | 4 | | Beghmpr |
| 7p. Sedan..... | 3785 | 4 | | Beghmpr |
| 7p. Berline Sed..... | 3885 | 4 | | Beghmpr |
| LASALLE 125" W.B. | | | | |
| 2p. Roadster..... | \$2345 | 24020 | | aeghlmnrpx |
| 4p. Phaeton..... | 2295 | 44170 | | aeghlmnrpx |
| 4p. Sp. Phaeton..... | 2875 | 4 | | Beghklmnrpx |
| 134" W.B. | | | | |
| 5p. Family Sed..... | 2450 | 24580 | | aeghlmnrpx |
| 2-4p. Coupe..... | 2495 | 24340 | | aeghlmnrpx |
| 2-4p. Con. Coupe..... | 2595 | 4165 | | aeghlmnrpx |
| 5p. Sedan..... | 2595 | 4520 | | aeghlmnrpx |
| 5p. Coupe..... | 2625 | 4365 | | aeghlmnrpx |
| 5p. Con. Landau..... | 2725 | 44645 | | aeghlmnrpx |
| 7p. Sedan..... | 2775 | 44790 | | aeghlmnrpx |
| 7p. Imp. Sedan..... | 2875 | 44790 | | aeghlmnrpx |
| 5p. Trans. Cab..... | 4900 | 4 | | aeghlmnrpx |
| LINCOLN "8" | | | | |
| 2p. Spt. Rdstr..... | \$4600 | 24930 | | aeghklmnrpx |
| 2-4p. Club Rdstr..... | 4600 | 5010 | | aeghklmnrpx |
| 7p. Spt. Touring..... | 4600 | 44940 | | aeghklmnrpx |
| 4p. Spt. Phaeton..... | 4600 | 44910 | | beghklmnrpx |
| 4p. Coupe..... | 4600 | 24805 | | aeghklmnrpx |
| 4p. Sedan..... | 4800 | 44930 | | aeghklmnrpx |
| 5p. Sedan..... | 4800 | 5010 | | aeghklmnrpx |
| 2p. Coupe..... | 5000 | 4720 | | aeghklmnrpx |
| 7p. Sedan..... | 5000 | 5050 | | aeghklmnrpx |
| 7p. Limousine..... | 5200 | 5165 | | aeghklmnrpx |
| 4p. Berline..... | 5500 | 5115 | | aeghklmnrpx |
| 7p. Limousine..... | 6000 | 5380 | | aeghklmnrpx |
| 7p. Brougham..... | 6500 | 5025 | | aeghklmnrpx |
| 6p. Ber. Landau..... | 6500 | 5140 | | aeghklmnrpx |
| 7p. Cabriolet..... | 6800 | 5160 | | aeghklmnrpx |
| 7p. Le Baron Cab..... | 7000 | 5200 | | aeghklmnrpx |
| 7p. Holbrook Cab..... | 7200 | 5290 | | aeghklmnrpx |
| 7p. Collap. Cab..... | 7300 | 5140 | | aeghklmnrpx |
| LOCOMOBILE "8-70" | | | | |
| 5p. Brougham..... | \$1995 | 43525 | | afghmnr |
| 5p. Sedan..... | 1995 | 43575 | | afghmnr |
| 4p. Vic. Coupe..... | 1995 | 23600 | | afghmnr |
| "8-80" | | | | |
| 4p. Spt. Touring..... | 3100 | 43972 | | beghklmnrpx |
| 4p. Coupe Vic..... | 2775 | 23820 | | afghmnrpx |
| 4p. Collap. Coupe..... | 3000 | 23780 | | afghmnrpx |
| 5p. Sedan..... | 2650 | 43950 | | afghmnrpx |
| 5p. Brougham..... | 2700 | 43990 | | afghmnrpx |
| 7p. Sedan..... | 3150 | 44140 | | afghmnrpx |
| 7p. Sub. Sedan..... | 3300 | 44280 | | afghmnrpx |
| 6p. Cabriolet..... | | | | Beghklmnp |
| "48" | | | | |
| 4p. Sportif..... | 45030 | | | afghklrpx |
| 4p. Roadster..... | 2 | | | afghklrpx |
| 7p. Touring..... | 45330 | | | afghklrpx |
| 7p. Tour. Lim..... | 45640 | | | afghklrpx |
| 6p. Brougham..... | 45464 | | | afghklrpx |
| 5p. Vic. Sedan..... | 45600 | | | afghklrpx |
| 7p. Lim. Enc. Dr..... | 45868 | | | afghklrpx |
| 7p. Cabriolet..... | 45624 | | | afghklrpx |
| "90" | | | | |
| 4p. Sportif..... | 5900 | 44475 | | aeghklmnrpx |
| 4p. Roadster..... | 5900 | 24370 | | aeghklmnrpx |
| 7p. Touring..... | 6000 | | | aeghklmnrpx |
| 5p. Vic. Sedan..... | 7300 | 44842 | | afghmnrpx |
| 7p. Suburban..... | 7500 | 44930 | | afghmnrpx |
| 4p. Vic. Sedan..... | 7450 | | | aeghklmnrpx |
| 7p. Town Bro'm..... | 7500 | 44615 | | afghmnrpx |
| 7p. Cabriolet..... | 7500 | 44615 | | afghmnrpx |
| ... Collap. Cab..... | 7750 | | | aeghklmnrpx |
| McFARLAN "Str. 8" 131" W.B. | | | | |
| 2p. Roadster..... | \$3050 | 23400 | | afghlmnrpx |
| 5p. Touring..... | 2650 | 43400 | | afghlmnrpx |
| 7p. Touring..... | 2750 | 43450 | | afghlmnrpx |
| 4p. Sp. Phaeton..... | 3180 | 43200 | | afghlmnrpx |
| 3p. Town Coupe..... | 3180 | 23650 | | afghlmnrpx |
| 5p. Sedan..... | 3180 | 43650 | | afghlmnrpx |
| 5p. Brougham..... | 3180 | 43650 | | afghlmnrpx |
| 7p. Town Car..... | 4600 | 43750 | | afghlmnrpx |
| 136" W.B. | | | | |
| 7p. Sedan..... | 3680 | 4400 | | afghlmnrpx |
| 7p. Sub. Sedan..... | 3780 | 4400 | | afghlmnrpx |
| "TV6" | | | | |
| 2p. Roadster..... | \$5800 | 24300 | | afghlmnrpx |
| 5p. Spt. Tour..... | 5900 | 44700 | | afghlmnrpx |
| 7p. Touring..... | 5700 | 44700 | | afghlmnrpx |
| 5p. Sedan..... | 6720 | 45200 | | afghlmnrpx |
| 7p. Sedan..... | 6720 | 45200 | | afghlmnrpx |
| 7p. Sedan..... | 6920 | 45200 | | afghlmnrpx |
| 7p. Town Car..... | 9000 | 45200 | | afghlmnrpx |
| MARMON "68" | | | | |
| 2-4p. Roadster..... | \$1565 | 22700 | | ahmnrw |
| 5p. Sedan..... | 1465 | 42897 | | ahmnrw |
| 4p. Vic. Coupe..... | 1520 | 22867 | | ahmnrw |
| 2-4p. Coupe..... | 1465 | 22827 | | ahmnrw |
| "78" | | | | |
| 2-4p. Roadster..... | 1965 | 23007 | | ahlmnrpx |
| 2-4p. Coupe..... | 1965 | 23097 | | ahlmnrpx |
| 4p. Vic. Coupe..... | 2065 | 3068 | | ahlmnrpx |
| 5p. Sedan..... | 1965 | 43104 | | ahlmnrpx |
| "E-75" | | | | |
| 2p. Speedster..... | 3485 | 24251 | | aeghlmnrpx |
| 4p. Speedster..... | 3485 | 24256 | | aeghlmnrpx |
| 5p. Phaeton..... | 3485 | 44480 | | aeghlmnrpx |
| 7p. Tour. Speed..... | 3565 | 44480 | | aeghlmnrpx |
| 2p. Coupe Rdstr..... | 3565 | 23744 | | aeghlmnrpx |
| 5p. Town Coupe..... | 3195 | 24452 | | aeghlmnrpx |
| 2p. Coupe..... | 3485 | 24373 | | aeghlmnrpx |
| 4p. Victoria..... | 3485 | 24346 | | aeghlmnrpx |
| 5p. Brougham..... | 3565 | 44525 | | aeghlmnrpx |
| 5p. Sedan..... | 3565 | 44493 | | aeghlmnrpx |
| 7p. Sedan..... | 3640 | 44620 | | aeghlmnrpx |
| 5p. Cus. Sedan..... | 3960 | 45153 | | aeghlmnrpx |
| 7p. Cus. Sedan..... | 4075 | 44673 | | aeghlmnrpx |
| 7p. Cus. Limou..... | 4175 | 44718 | | aeghlmnrpx |
| MOON "6-60" | | | | |
| 5p. Phaeton..... | \$895 | 42340 | | an |
| 5p. Coach..... | 995 | 24240 | | an |
| 5p. Roy. Sedan..... | 1195 | 23520 | | abin |
| 5p. Roy. Sedan..... | 1295 | 42605 | | abin |
| "6-62" | | | | |
| ... Touring..... | 995 | 2340 | | agh |
| ... Roadster..... | 1195 | 2295 | | agh |
| 5p. Sedan, 2d..... | 1295 | 22520 | | agh |
| 5p. Sedan, 4d..... | 1345 | 42605 | | agh |
| "6-71 Std." | | | | |
| ... Std. Roads..... | 1295 | 22720 | | agh |
| ... Roy. Roadstr..... | 1395 | 2635 | | agh |
| 5p. Sedan..... | 1445 | 42810 | | agh |
| 5p. Sedan..... | 1445 | 42930 | | agh |
| "6-72 Royal" | | | | |
| ... Cab. iole..... | 1495 | 22880 | | agh |
| ... Sedan..... | 1595 | 43080 | | agh |
| ... Petite Sedan..... | 1595 | | | agh |
| ... Vic. Coupe..... | 1695 | | | agh |
| "8-80" | | | | |
| 5p. Petite Sedan..... | 2195 | 43480 | | agh |
| 5p. Sedan..... | 2195 | 43520 | | agh |
| 2-4p. Cab. Rdstr..... | 2035 | 3365 | | agh |
| 4p. Vic. Coupe..... | 2195 | 4 | | agh |
| 7p. Sedan..... | 2395 | 4 | | agh |
| NASH "Std. 6" | | | | |
| 2p. Coupe..... | \$885 | 22500 | | aeghlmnrpx |
| 2-4p. Collap. Cab..... | 955 | 22559 | | aeghlmnrpx |
| 5p. Sedan..... | 885 | 22625 | | aeghlmnrpx |
| 5p. Phaeton..... | 935 | 22509 | | aeghlmnrpx |
| 5p. Sedan..... | 955 | 22125 | | aeghlmnrpx |
| 5p. Landau Sed..... | 995 | 42725 | | aeghlmnrpx |
| "Special 6" | | | | |
| 5p. Phaeton..... | 1250 | 4 | | aeghlmnrpx |
| 2-4p. Col. Cab..... | 1345 | 23260 | | aeghlmnrpx |
| 2p. Coupe..... | 1245 | 2 | | aeghlmnrpx |
| 5p. Sedan..... | 1260 | 23400 | | aeghlmnrpx |
| 2-4p. Coupe..... | 1315 | 2 | | aeghlmnrpx |
| 5p. Sedan..... | 1345 | 43400 | | aeghlmnrpx |
| 4p. Vic. Coupe..... | 1345 | 2 | | aeghlmnrpx |
| "Advance 121" W.B. | | | | |
| 5p. Sedan..... | 1480 | 23760 | | aeghlmnrpx |
| 5p. Sedan..... | 1550 | 43700 | | aeghlmnrpx |
| 130" W.B. | | | | |
| 7p. Phaeton..... | 1550 | 4 | | aeghlmnrpx |
| 2-4p. Col. Cab..... | 1660 | 23675 | | aeghlmnrpx |
| 2-4p. Coupe..... | 1775 | 2 | | aeghlmnrpx |
| 5p. Landau Sed..... | 1925 | 23940 | | aeghlmnrpx |
| 7p. Sedan..... | 1990 | 43970 | | aeghlmnrpx |
| 7p. Imp. Sedan..... | 2165 | 4 | | aeghlmnrpx |
| OAKLAND "AA-6" | | | | |
| 5p. Sp. Phaeton..... | \$1095 | 42620 | | aeghlmnrpx |

KEY TO SYMBOLS

- | | | | | |
|------------------------------------------|--------------------------------|--------------------------|----------------------------|--------------------------|
| *—Italic figures denote shipping weight. | e—Type of wheels optional. | z—Trunk and trunk rack. | o—Car heater. | v—Vanity set. |
| A—Wood wheels with spare. | D—Disk wheels with spare. | i—Trunk rack, no trunk. | r—Cigar lighter. | w—Windshield wings. |
| a—Wood wheels. | d—Disk wheels. | k—Spare tire. | r—Rear traffic signal. | x—Clock. |
| B—Wire wheels with spare. | e—Front and rear bumpers. | l—Spare tire lock. | s—Spotlight. | †—Overall length. |
| b—Wire wheels. | f—Front bumper. | m—Engine heat indicator. | t—Vanity and smoking sets. | §—Prices on application. |
| C—Automatic wheels with spare. | g—Shock absorbers or snubbers. | n—Dash gasoline gauge. | u—Smoking set. | |
| | h—Automatic windshield wiper. | | | |

Prices, Weights and Equipment of Current Passenger Car Models

| Passengers and Model | F.O.B. Price | Doors | Net Weight* | Standard Equipment | Passengers and Model | F.O.B. Price | Doors | Net Weight* | Standard Equipment | Passengers and Model | F.O.B. Price | Doors | Net Weight* | Standard Equipment | Passengers and Model | F.O.B. Price | Doors | Net Weight* | Standard Equipment | |
|----------------------|--------------|-------|-------------|--------------------|----------------------|----------------|--------|-------------|--------------------|-----------------------|-------------------------|---------------|-------------|--------------------|------------------------|-----------------|--------|-------------|--------------------|-----------|
| 4p. Sp. Rdster.. | \$1075 | 2 | 2730 | aeghjn | PIERCE-ARROW "81" | 2p. Runabout.. | \$2600 | 2 | 3350 | afghlmnr | ROLLS ROYCE "St. Ghost" | Open Models.. | | Bfghjkmpr | STUTZ "BB" "Custom" | 2p. Speedster.. | \$3495 | 2 | 4478 | aefghlmnr |
| 2-4p. Cabriolet.. | 1155 | 2 | 2825 | aghn | 4p. Touring.. | 2700 | 4 | 3350 | afghlmnr | 5p. C.C. Sedan.. | 2495 | 4 | 4252 | aeghklmnr | 4p. Speedster.. | 3595 | 4 | 4509 | aefghlmnr | |
| 5p. 2d. Sedan.. | 1045 | 2 | 2890 | aghn | 7p. Touring.. | 2850 | 4 | 3500 | afghlmnr | 5p. Sedan.. | 2495 | 4 | 4252 | aeghklmnr | 4p. Speedster.. | 3845 | 4 | 4600 | aefghlmnr | |
| 3p. Land. Coupe | 1045 | 2 | 2890 | aghn | 5p. Club Bro'm.. | 2650 | 2 | 3350 | afghlmnr | 4p. Coupe.. | 2645 | 2 | 4252 | aeghklmnr | 2p. Black Hawk | 4895 | 2 | 4302 | afghlmnr | |
| 5p. 4d. Sedan.. | 1145 | 4 | 2980 | aghn | 2p. Coupe metal. | 3250 | 2 | 3540 | afghlmnr | 5p. Std. Sedan.. | 3450 | 4 | 4572 | aeghklmnr | 4p. Black Hawk | 4945 | 2 | 4302 | afghlmnr | |
| 5p. Land. Sedan. | 1265 | 4 | 3050 | aeghn | 5p. Brougham.. | 2650 | 2 | 3350 | afghlmnr | 5p. Sedan Lim.. | 3700 | 4 | 4647 | aeghklmnr | 2p. Coupe.. | 3495 | 2 | 4484 | aefghlmnr | |
| OLDSMOBILE "F-23" | | | | | 2p. Coupe leath. | 2650 | 2 | 3350 | afghlmnr | 5p. Cus. Sed. Lim. | 3700 | 4 | 4637 | aeghklmnr | 4p. Vic. Coupe | 3495 | 2 | 4479 | aefghlmnr | |
| 5p. Sp. Roadster.. | \$995 | 2 | 2650 | ceghmnr | 5p. Club Sedan.. | 2750 | 4 | 3635 | afghlmnr | 7p. Sedan.. | 3750 | 4 | 4772 | aeghklmnr | 5p. Coupe.. | 3545 | 2 | 4789 | aefghlmnr | |
| 5p. Sp. Touring.. | 995 | 2 | 2650 | ceghmnr | 2-4p. Coupe met. | 2750 | 2 | 3350 | afghlmnr | 7p. Limousine.. | 2945 | 4 | 4772 | aeghklmnr | 5p. Sedan.. | 3570 | 4 | 4977 | aefghlmnr | |
| 2p. Coupe.. | 925 | 2 | 2785 | aeghmnr | 5p. Sedan.. | 2750 | 4 | 3605 | afghlmnr | 4p. Roadster.. | \$250 | 2 | 4252 | aeghklmnr | 5p. Brougham.. | 3570 | 4 | 4820 | aefghlmnr | |
| 5p. Sedan, 2d.. | 925 | 2 | 2785 | aeghmnr | 2-4p. Coupe lea. | 2750 | 2 | 3350 | afghlmnr | 4p. Touring.. | 3250 | 4 | 4322 | aeghklmnr | 2p. Cab. Coupe | 3695 | 2 | 4520 | aefghlmnr | |
| 2-4p. Spt. Coupe | 995 | 2 | 2680 | ceghmnr | 2p. Con't Cpe. | 2850 | 2 | 3455 | afghlmnr | 4p. Cab. Rdstr.. | 3550 | 2 | 4500 | aeghklmnr | 145" W.B. | | | | | |
| 5p. Sedan, 4d.. | 1025 | 4 | 2860 | aeghmnr | 5p. Club Land.. | 2850 | 4 | 3640 | afghlmnr | 5p. C.C. Sedan.. | 2495 | 4 | 4252 | aeghklmnr | 7p. Speedster | 3895 | 4 | 4748 | aefghlmnr | |
| 5p. Landau Sed.. | 1085 | 4 | 2855 | ceghmnr | 7p. Sedan.. | 2850 | 4 | 3700 | afghlmnr | 5p. Sedan.. | 2495 | 4 | 4252 | aeghklmnr | 5p. Country Club | 3895 | 4 | 4748 | aefghlmnr | |
| "Deluxe Series" | | | | | 4p. Coupe.. | 2950 | 2 | 3490 | afghlmnr | 5p. Coupe.. | 2645 | 2 | 4252 | aeghklmnr | 7p. Sedan.. | 3895 | 4 | 5018 | aefghlmnr | |
| 5p. Sp. Phaeton.. | 1145 | 4 | 2800 | Beghijklmnr | 2-4p. Conv't Cpe. | 2950 | 2 | 3490 | afghlmnr | 7p. Sedan.. | 2845 | 4 | 4252 | aeghklmnr | 7p. Sedan Lim. | 3995 | 4 | 5159 | aefghlmnr | |
| 5p. Sp. Road-te | 1145 | 2 | 2770 | Beghijklmnr | 7p. Enc. Dr. Lim. | 2950 | 4 | 3755 | afghlmnr | 7p. Limousine.. | 2945 | 4 | 4252 | aeghklmnr | 5p. Collap. Sed. | 3995 | 5 | 5020 | aefghlmnr | |
| Spec. Coupe.. | 995 | 2 | 2760 | aeghijklmnr | 5p. Sedan Land.. | 3550 | 4 | 3605 | afghlmnr | "F-6-85" | | | | 5p. Collap. Lim. | 4095 | 5 | 5030 | aefghlmnr | | |
| 5p. Sport Coupe. | 1145 | 2 | 2840 | Beghijklmnr | 7p. Sed. Landau. | 3700 | 4 | 3700 | afghlmnr | 4p. Roadster.. | \$250 | 2 | 4252 | aeghklmnr | 7p. Collap. Lim. | 4195 | 5 | 5030 | aefghlmnr | |
| 5p. Sedan.. | 1175 | 4 | 3005 | Beghijklmnr | 7p. Enc. Dr. Land. | 3800 | 4 | 3755 | afghlmnr | 4p. Touring.. | 3250 | 4 | 4322 | aeghklmnr | "Weyman-Cus." | | | | | |
| Landau Sed.. | 1235 | 4 | 3005 | Beghijklmnr | 5p. Opera Bro'm | 7000 | 4 | 3755 | afghlmnr | 4p. Cab. Rdstr.. | 3550 | 2 | 4500 | aeghklmnr | 131" W.B. | | | | | |
| OVERLAND "F-23" | | | | | 2p. Runabout.. | 5875 | 2 | 4560 | afghlrx | 4p. Cab. Rdstr.. | 3550 | 2 | 4500 | aeghklmnr | 2p. Black Hawk | 4895 | 2 | 4302 | afghlmnr | |
| 4p. Touring.. | \$455 | 4 | 1985 | agr | 4p. Touring.. | 5875 | 4 | 4510 | afghlrx | 5p. Cus. Sedan. | 3350 | 4 | 4562 | aeghklmnr | 5p. Sedan.. | 4120 | 4 | 4393 | aefghlmnr | |
| 2-4p. Roadster.. | 525 | 2 | 1932 | agr | 7p. Touring.. | 5875 | 4 | 4595 | afghlrx | 4p. Coupe.. | 3450 | 2 | 4527 | aeghklmnr | 4p. Sedan.. | 4120 | 2 | 4393 | aefghlmnr | |
| 2p. Coupe.. | 535 | 2 | 2060 | agr | 7p. Lim. Encl.. | 5875 | 4 | 4870 | afghlrx | 5p. Std. Sedan.. | 3450 | 4 | 4572 | aeghklmnr | 4p. Coupe.. | 4120 | 2 | 4393 | aefghlmnr | |
| 2-4p. Coupe Cab. | 595 | 2 | 2122 | agr | 3p. Coupe.. | 6375 | 2 | 4760 | afghlrx | 5p. Sedan Lim.. | 3700 | 4 | 4647 | aeghklmnr | 5p. Landau Sed. | 4420 | 4 | 4393 | aefghlmnr | |
| 5p. Coach.. | 535 | 2 | 2160 | agr | 4p. Cpe. Sedan. | 6375 | 2 | 4795 | afghlrx | 5p. Sedan.. | 3700 | 4 | 4647 | aeghklmnr | 145" W.B. | | | | | |
| 5p. Sedan.. | 610 | 4 | 2210 | agr | 4p. Sedan.. | 6375 | 4 | 4830 | afghlrx | 5p. Sedan.. | 3700 | 4 | 4647 | aeghklmnr | 5p. Sedan.. | 4495 | 4 | 4393 | aefghlmnr | |
| "6" Whipet | | | | | 7p. Enc. Dr. Lan. | 6000 | 4 | 4895 | afghlrx | 5p. Sedan Lim.. | 3700 | 4 | 4647 | aeghklmnr | 5p. Sedan.. | 4545 | 4 | 4393 | aefghlmnr | |
| 2-4p. Roadster.. | 685 | 2 | 2228 | agr | 7p. Sedan Land.. | 6000 | 4 | 4840 | afghlrx | 5p. Cus. Sed. Lim. | 3700 | 4 | 4637 | aeghklmnr | 7p. Sedan.. | 4745 | 4 | 4393 | aefghlmnr | |
| 5p. Touring.. | 615 | 4 | 2333 | agr | 4p. Lim. Encl.. | 6375 | 4 | 4840 | afghlrx | 7p. Sedan.. | 3750 | 4 | 4702 | aeghklmnr | 7p. Limousine.. | 4995 | 4 | 4778 | aefghlmnr | |
| 2-4p. Coupe.. | 695 | 2 | 2356 | agr | 4p. C. C. Sedan. | 6475 | 4 | 4805 | afghlrx | 7p. Sedan Lim. | 3950 | 4 | 4777 | aeghklmnr | 7p. Landau Lim. | 5295 | 4 | 4393 | aefghlmnr | |
| 5p. Coach.. | 695 | 2 | 2423 | agr | 2p. Coupe.. | 6600 | 2 | 4745 | afghlrx | "De Luxe H" | | | | "Salon Cus." | | | | | | |
| 5p. Sedan.. | 770 | 4 | 2484 | agr | 4p. Sedan Land | 6600 | 4 | 4795 | afghlrx | 4p. Roadster.. | 5500 | 2 | 4500 | aeghklmnr | 5p. PW Sedan.. | 6345 | 4 | 4393 | aefghlmnr | |
| PACKARD "Std. 8" | | | | | 4p. Enc. Dr. Land. | 6600 | 4 | 4880 | afghlrx | 4p. Cab. Rdstr.. | 5500 | 2 | 4500 | aeghklmnr | 7p. PW Sedan.. | 6345 | 4 | 5014 | aefghlmnr | |
| 126 W.B. | | | | | 7p. Fr. Limou.. | 7500 | 4 | 4740 | afghlrx | 5p. Cus. Sedan. | 5500 | 2 | 4500 | aeghklmnr | 7p. Con. T'n Car | 6895 | 4 | 5044 | aefghlmnr | |
| 5p. Sedan.. | \$2435 | 4 | 4185 | dghmnrpx | 7p. Fr. Landau.. | 8000 | 4 | 4865 | afghlrx | 5p. Sedan.. | 5500 | 4 | 4500 | aeghklmnr | VELIE "6-55" | | | | | |
| 2-4p. Coupe.. | 2510 | 2 | 4100 | dghmnrpx | PLYMOUTH | | | | | 4p. Cab. Rdstr.. | 5500 | 2 | 4500 | aeghklmnr | 3p. Coupe.. | \$1195 | 2 | 4393 | aefghlmnr | |
| 2-4p. Con. Coupe | 2585 | 2 | 4020 | dghmnrpx | 2-4p. Roadster.. | \$675 | 4 | 2160 | ah | 2p. Coupe.. | 5500 | 2 | 4500 | aeghklmnr | 5p. Sedan.. | 1195 | 2 | 4393 | aefghlmnr | |
| "Std. 8" | | | | | 5p. Touring.. | 695 | 4 | 2255 | ah | 5p. Coupe.. | 5500 | 2 | 4492 | aeghklmnr | 5p. Spec. Sedan. | 1195 | 4 | 4393 | aefghlmnr | |
| 133" W.B. | | | | | 2-4p. Roadster.. | 710 | 2 | 2250 | B | 5p. Sedan.. | 5500 | 4 | 4500 | aeghklmnr | 5p. Royal Sedan. | 1195 | 4 | 4393 | aefghlmnr | |
| 2-4p. Runabout.. | \$2535 | 2 | 3905 | dghmnrpx | 2p. Coupe.. | 685 | 2 | 2295 | ah | "De Luxe J" | | | | 5p. Std. Touring | 1195 | 4 | 2960 | aefghlmnr | | |
| 5p. Phaeton.. | 2535 | 4 | 3905 | dghmnrpx | 5p. Sedan, 2d. | 700 | 2 | 2435 | ah | 7p. Touring.. | 5500 | 4 | 4872 | aeghklmnr | 5p. Sp. Touring.. | 1265 | 4 | 2960 | aefghlmnr | |
| 7p. Touring.. | 2635 | 4 | 3950 | dghmnrpx | 2-4p. Del. Coupe | 735 | 2 | 2435 | ah | 7p. Sedan.. | 5600 | 4 | 5167 | aeghklmnr | 3-5p. Coupe.. | 1265 | 2 | 2980 | aefghlmnr | |
| 4p. Coupe.. | 2735 | 4 | 4225 | dghmnrpx | 5p. Sedan, 4d.. | 735 | 4 | 2460 | ah | 7p. Limousine.. | 5800 | 4 | 5217 | aeghklmnr | 5p. Coupe.. | 1265 | 2 | 3070 | aefghlmnr | |
| 5p. Club Sedan. | 2735 | 4 | 4240 | dghmnrpx | PONTIAC "6" | | | | | 4p. Roadster.. | 3950 | 2 | 4448 | aeghklmnr | 5p. Spec. Sedan. | 1265 | 4 | 3100 | aefghlmnr | |
| 7p. Sedan.. | 2735 | 4 | 4440 | dghmnrpx | 2-4p. Roadster.. | \$745 | 2 | 2270 | ahn | 4p. Touring.. | 3950 | 4 | 4633 | aeghklmnr | 5p. Royal Sedan. | 1265 | 4 | 3100 | aefghlmnr | |
| 7p. Sedan Lim.. | 2835 | 4 | 4475 | dghmnrpx | 5p. Sp. Phaeton. | 775 | 4 | 2425 | ahn | 4p. Cabriolet.. | 4550 | 2 | 4717 | aeghklmnr | 5p. Std. Touring | 1515 | 4 | 3160 | aefghlmnr | |
| "640" | | | | | 2p. Coupe.. | 745 | 2 | 2435 | ahn | 4p. Coupe.. | 4550 | 2 | 4882 | aeghklmnr | 5p. Sp. Touring.. | 1585 | 4 | 3185 | aefghlmnr | |
| 2-4p. Runabout.. | \$3175 | 2 | 4185 | dghmnrpx | 5p. 2d. Sedan.. | 745 | 2 | 2520 | ahn | 5p. Sedan.. | 4650 | 4 | 4934 | aeghklmnr | 3-5p. Coupe.. | 1585 | 2 | 3230 | aefghlmnr | |
| 5p. Phaeton.. | 3175 | 4 | 4185 | dghmnrpx | 4p. Sport Cab.. | 795 | 2 | 2455 | ahn | 7p. Sedan.. | 4750 | 4 | 5027 | aeghklmnr | 5p. Coupe.. | 1585 | 2 | 3270 | aefghlmnr | |
| 7p. Touring.. | 3275 | 4 | 4185 | dghmnrpx | 5p. Sp. Sedan.. | 825 | 4 | 2595 | ahn | 5p. Sedan Lim.. | 4850 | 4 | 5008 | aeghklmnr | 5p. Royal Sedan. | 1585 | 4 | 3310 | aefghlmnr | |
| 2p. Coupe.. | 3250 | 2 | 4185 | dghmnrpx | 5p. Sp. Landau.. | 875 | 4 | 2640 | aehn | 7p. Limousine.. | 5250 | 4 | 5100 | aeghklmnr | 5p. Spec. Sedan. | 1585 | 4 | 3300 | aefghlmnr | |
| 2-4p. Conv. Cpe. | 3350 | 2 | 4185 | dghmnrpx | REO "Flying Cloud" | | | | | 5p. Sedan.. | 5250 | 4 | 5100 | aeghklmnr | "8-90" | | | | | |
| 5p. Club Sedan.. | 3750 | 4 | 4185 | dghmnrpx | 2-4p. Roadster.. | \$1685 | 2 | 3350 | aeghmnr | STUDEBAKER "Dictator" | | | | 5p. Std. Touring | 2025 | 4 | 3160 | aefghlmnr | | |
| 7p. Sedan.. | 3750 | 4 | 4185 | dghmnrpx | 5p. Brougham.. | 1645 | 2 | 3350 | aeghmnr | 5p. Touring.. | \$1265 | 4 | 4185 | aeghmnr | 5p. Sp. Touring.. | 2095 | 4 | 3160 | aefghlmnr | |
| Sedan Lim.. | 3850 | 4 | 4185 | dghmnrpx | 2p. Sp. Coupe.. | 1625 | 2 | 3445 | aeghmnr | 7p. Touring.. | 1325 | 4 | 4185 | aeghmnr | 3-5p. Coupe.. | 2095 | 2 | 3230 | aefghlmnr | |
| PEERLESS "6-60" | | | | | 4p. Victoria.. | 1795 | 2 | 3550 | aeghmnr | 5p. Club Sedan. | 1325 | 2 | 4185 | aeghmnr | 5p. Coupe.. | 2095 | 2 | 3230 | aefghlmnr | |
| 2-4p. Roadster.. | \$1195 | 2 | 2635 | eghlmnrw | 5p. Sedan.. | 1845 | 4 | 3645 | aeghmnr | 5p. Sedan.. | 1265 | 2 | 4185 | aeghmnr | 5p. Royal Sedan. | 2095 | 4 | 3300 | aefghlmnr | |
| 5p. Phaeton.. | 1195 | 4 | 2635 | eghlmnrw | 5p. Del. Sedan.. | 1995 | 4 | 3645 | aeghmnr | 2p. Bus. Coupe. | 1265 | 2 | 4185 | aeghmnr | 5p. Spec. Sedan. | 2095 | 4 | 3300 | aefghlmnr | |
| 2-4p. Coupe.. | 1295 | 2 | 2775 | eghlmnr | 4p. Cabriolet.. | 1195 | 2 | 2850 | aeghmnr | 4p. Victoria.. | 1345 | 2 | 4185 | aeghmnr | 5p. Std. Touring | 2095 | 4 | 3160 | aefghlmnr | |
| 5p. Brougham.. | 1195 | 4 | 2850 | eghlmnr | 5p. Brougham.. | 1195 | 2 | 2930 | aeghmnr | 4p. Royal Cab | 1395 | 2 | 4185 | aeghmnr | 5p. Sp. Touring.. | 2095 | 4 | 3160 | aefghlmnr | |
| 5p. Sedan.. | 1195 | 2 | 2780 | eghlmnr | 5p. Sedan.. | 1295 | 4 | 3090 | aeghmnr | 5p. Royal Sedan. | 1395 | 4 | 4415 | aeghmnr | 3-5p. Coupe.. | 2095 | 2 | 3230 | aefghlmnr | |
| 5p. Sedan.. | 1295 | 4 | 2905 | eghlmnr | ROAMER "8-78" | | | | | "Commander" | | | | 5p. Coupe.. | 2095 | 2 | 3230 | aefghlmnr | | |
| 2-4p. Coupe.. | 1895 | 2 | 3225 | ceghlmnr | 2p. Roadster.. | \$1595 | 2 | 3450 | eghmnr | 5p. Sedan.. | 1495 | 4 | 3665 | eghmnr | 5p. Royal Sedan. | 2095 | 4 | 3300 | aefghlmnr | |
| 5p. Sedan.. | 1895 | 4 | 3355 | ceghlmnr | 2p. Coupe.. | 1750 | 2 | 3225 | eghmnr | 5p. Victoria.. | 1545 | 2 | 3665 | eghmnr | 5p. Spec. Sedan. | 2095 | 4 | 3300 | aefghlmnr | |
| 4p. Victoria.. | 1895 | 4 | 3240 | ceghlmnr | 5p. Sedan.. | 1795 | 2 | 3380 | eghmnr | 5p. Sedan Rega | 1665 | 4 | 3815 | eghmnr | WILLIS-KNIGHT "Std. 6" | | | | | |
| 7p. Sedan.. | 1995 | 4 | 3420 | ceghlmnr | "8-80" | | | | | "President" | | | | 2-4p. Roadster.. | \$995 | 2 | 2631 | aghn | | |
| 5p. Phaeton.. | 1540 | 4 | 3140 | aeghmnr | 2p. Roadster.. | 1895 | 2 | 3310 | ag | 4p. State Rdstr. | 1850 | 2 | 3760 | aghmnr | 5p. Touring.. | 995 | 4 | 2710 | aghn | |
| 7p. Touring.. | 1595 | 4 | 3140 | aeghmnr | 2p. Coupe.. | 1895 | | | | | | | | | | | | | | |

Mechanical Specifications of Current Passenger Car Models

This list comprises current cars distributed on a national basis only. Data for previous models back to 1920 will be found in the Chilton Catalog and Directory

| MAKE AND MODEL | Wheel Base (Inches) | Tire Size | Make and Model | Bore and Stroke | Rated H.P. | Piston Displacement | Valve Arrangement | ENGINE | | | | ELECTRICAL SYSTEM | | | | | | REAR AXLE | BRAKES | | Steering Gear—Type and Make | Rear Spring—Type and Length | Chassis Lubrication— | ABBREVIATIONS—NAMES OF MEMS OF STOCK PARTS | | | | | | | | |
|-----------------|---------------------|-----------|----------------|-----------------|------------|---------------------|-------------------|---------------------------------------------|-------------------|----------------|-----------------|-------------------|------------------|---------------|--------------|------------------|------------|-----------|--------------|-----------------|-----------------------------|-----------------------------|----------------------|--------------------------------------------|----------------------------|----------------------|-------------------------|---------------|------------|------------------------|------------------------|----------------------|
| | | | | | | | | Maximum Brake Horsepower at Specified Speed | Compression Ratio | Camshaft Drive | Piston Material | No. Main Bear. | Crankshaft Vib'n | Oiling System | Oil Cleaner? | Radiator Shutter | Carburetor | | Air Cleaner? | Ignition System | | | | | Generator and Starter Make | Clutch—Type and Make | Universal—Type and Make | Type and Make | Gear Ratio | Foot—Type and Location | Hand—Type and Location | 4-Wheel Type |
| Auburn. | 76 | 28x5.25 | Lyc. | WS | 6-27x4 3/4 | 19.8 | 185 L | L | 60-3400 5.05 | Ch. | Als. | Als. | 4 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | A-Bos—American-Bosch |
| Auburn. | 88 | 30x6.00 | Lyc. | GS | 8-27x4 3/4 | 26.4 | 247 L | L | 88-3200 5.15 | Ch. | Als. | Als. | 4 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | A-K—Atwater Kent |
| Auburn. | 115 | 30x6.20 | Lyc. | AMD | 6-31x4 1/2 | 33.8 | 247 L | L | 115-3200 5.25 | Ch. | Als. | Als. | 4 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | A-L—Auto-Life |
| Buick. | 115 | 30x6.50 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 74-2800 4.56 | Ch. | B. | B. | 4 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Ada—Adams |
| Buick. | 121 & 129 | 32x6.50 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 91-2800 5.3 | Ch. | He. | He. | 4 | Y | PA | Y | Y | Y | Y | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Cadillac. | 341 | 32x6.75 | Own. | Own. | 8-31x4 1/2 | 35.1 | 310 L | L | 95-3000 5.3 | Ch. | He. | He. | 4 | Y | PA | Y | Y | Y | Y | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Chandler. | Big 6 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 93-3000 5.0 | Ch. | He. | He. | 4 | Y | PA | Y | Y | Y | Y | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Chandler. | 65 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 93-3000 5.0 | Ch. | He. | He. | 4 | Y | PA | Y | Y | Y | Y | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Chandler. | 109 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 93-3000 5.0 | Ch. | He. | He. | 4 | Y | PA | Y | Y | Y | Y | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Chandler. | Royal 75 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 94-3000 5.0 | Ch. | He. | He. | 4 | Y | PA | Y | Y | Y | Y | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Chandler. | 85 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 94-3000 5.0 | Ch. | He. | He. | 4 | Y | PA | Y | Y | Y | Y | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Chrysler. | National | 107 | 30x4.50 | Own. | Own. | 6-31x4 1/2 | 17.1 | 171 L | 75-3200 5.2 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Chrysler. | 65 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 75-3200 5.0 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Chrysler. | Imperial '00 | 132-142 | 30x6.75 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 112-3200 5.0 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Cunningham. | V-7 | 32x6.75 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 95-3000 5.3 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Davis | 99 | 30x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 84-3200 5.4 | Ch. | Als. | Als. | 3 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| DeSoto. | 161 | 30x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 75-3200 5.0 | Ch. | Als. | Als. | 4 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Std. 6 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 72-2500 4.79 | Ch. | Als. | Als. | 4 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Victory 6 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | L | 72-2500 4.79 | Ch. | Als. | Als. | 4 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 112 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 120 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
| Dodge Brothers. | Senior | 125-136 | 32x6.00 | Own. | Own. | 6-31x4 1/2 | 31.5 | 310 L | 58-3000 5.18 | Ch. | Als. | Als. | 7 | Y | PG | Y | N | N | N | D-R. | D-R. | D-R. | P-Long. | m-U-P. | m-U-P. | 4.9 | I-F | E-T. | Ros. | S-56 1/2 | Bi | Alm—Alm |
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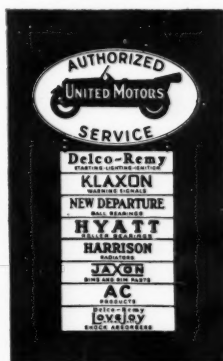
Car Dealers

.... will tell you this
about UNITED MOTORS SERVICE

TWELVE YEARS ago the car dealer had to be a "jack of all trades." He had to spend much time and money mastering the intricacies of specialized equipment. He had to carry large stocks of genuine parts, purchase costly equipment, and train his men or employ high-priced men already trained.

Then United Motors came into the picture. United Motors established Branches and Authorized Service Stations everywhere; genuine parts were sold to the car dealer in small quantities; expert, authorized service on the products handled by United Motors was given at reasonable rates.

The car dealer was relieved from the burden of specialization. United Motors assumed his overhead on parts, testing apparatus



and special equipment. And United Motors, by serving well, found itself with more and more to do.

Today there are 23 Control Branches of United Motors and more than 2600 Authorized Distributors and Service Stations

attending the needs of motor car dealers in the United States and Canada. By utilizing the complete facilities of United Motors (genuine parts and specialized repair work) car dealers are increasing the good will of their customers.

An interesting booklet has been written about United Motors, explaining its value to the car dealer. This booklet, together with the latest United Motors Service Directory which lists every Control Branch, Authorized Distributor and Service Station, will gladly be furnished you upon request.

UNITED MOTORS SERVICE

General Offices

INCORPORATED

Detroit, Michigan

Locations of Control Branches

ATLANTA
BOSTON
BUFFALO
CHICAGO

CINCINNATI
CLEVELAND
DALLAS
DENVER

DETROIT
INDIANAPOLIS
KANSAS CITY
LOS ANGELES

MILWAUKEE
MINNEAPOLIS
NEW ORLEANS
NEW YORK

OMAHA
PHILADELPHIA
PITTSBURGH
ST. LOUIS

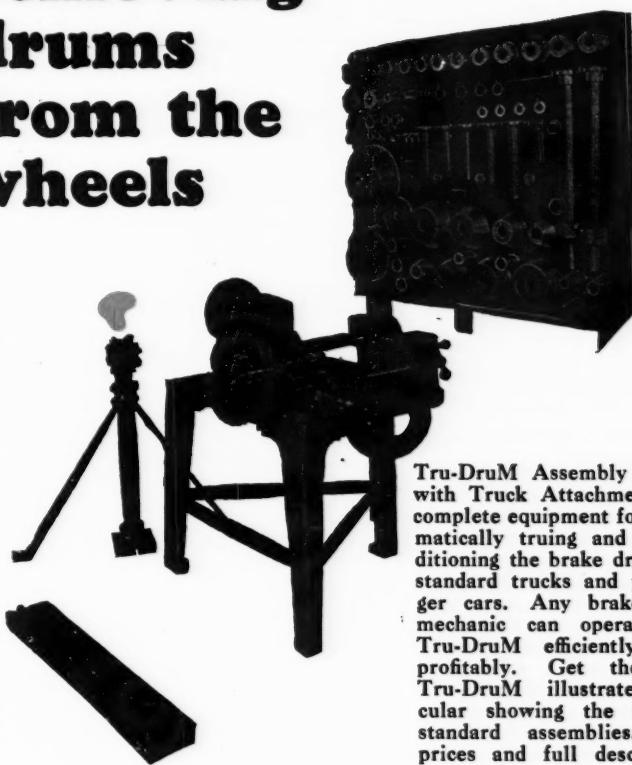
SAN FRANCISCO
SEATTLE
TORONTO
CANADA

Mechanical Specifications of Current Passenger Car Models—Continued

| MAKE AND MODEL | (Wheel Base) (Inches) | Tire Size | Make and Model | Number of Cyls. | Bore and Stroke | Rat'd H.P. | Valve Dis-Placement | Valve Arrangement | Maximum Brake Horsepower at Specified Speed | Compression Ratio | Camshaft Drive | Piston Material | No. Main Bear. | Crankshaft Vib'n Dampert | Oiling System | Oil Cleaner? | Radiator Shut-ter | Carburetor | Air Cleaner? | ELECTRICAL SYSTEM | | Clutch—Type and Make | Gear Set—Make | Universal Make | REAR AXLE | | BRAKES | | Steering Gear—Make | Rear Sprng—Type and Length | Chassis Lubrication | ABBREVIATIONS—NAMES OF MFRS OF STOCK PARTS |
|----------------|-----------------------|-----------|----------------|-----------------|-----------------|------------|---------------------|-------------------|---------------------------------------------|-------------------|----------------|-----------------|----------------|--------------------------|---------------|--------------|-------------------|------------|--------------|----------------------------|----------------------|----------------------|---------------|----------------|---------------|------------------------|------------------------|--------------|--------------------|----------------------------|---------------------|--------------------------------------------|
| | | | | | | | | | | | | | | | | | | | | Generator and Starter Make | Ignition System Make | | | | Type and Make | Foot—Type and Location | Hand—Type and Location | 4-Wheel Type | | | | |
| Kaiser 8-126 | 132-139 | 30x6.75 | Own | 8-3 1/2 x 4 1/4 | 33.8 | 299 | 7 | 126-3400 5.35 | Ch. | Ch. | Ch. | Al. | 9 | Y. | PA. | Y. | Y. | N. | Str. | Y. | D-R. | P. B&B. | W.G. | m-Mec. | Tim. | 4.80 | E-T. | H. | Ros. | 8-60 | Al. | A-Bee—American-Beech |
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True Brakes

of passenger cars and trucks with this one complete Tru-Drum Lathe outfit without removing drums from the wheels



Tru-Drum Assembly No. 1 with Truck Attachment and complete equipment for automatically truing and reconditioning the brake drums of standard trucks and passenger cars. Any brake shop mechanic can operate the Tru-Drum efficiently and profitably. Get the new Tru-Drum illustrated circular showing the three standard assemblies, with prices and full description.

Mail the Coupon Below!

TRADE MARK

REG. U. S. PAT. OFF.

Tru-Drum

AUTOMATIC BRAKE DRUM LATHE

Tear off and mail this corner of the page with your name and address. It will bring you a new guide to bigger profits.

MANUFACTURERS' AUTO EQUIPMENT CO.
995 E. Green St., Pasadena, California

Send me your new Tru-Drum circular TJ-9 by return mail, free.

Name

Address

"No stronger than its weakest link!"

—holds true even in the finishing shop

"A chain is no stronger than its weakest link," runs the old axiom. And it holds true *even in the finishing shop*. Just one "cheap" product is bound to mar an otherwise perfect finish.

Even a skilled finisher working with the finest lacquer enamel cannot *entirely* remedy the damaging effect of a "cheap" thinner or a "cheap" primer. He *always* faces the danger of "bubbles," of peeling—of having to do the job over. Sometimes the finish *looks* all right, but after it has gone out of the shop the customer returns later with it peeling and chalking.

The "cheap" material is showing up. It costs many times over what it promised to save.

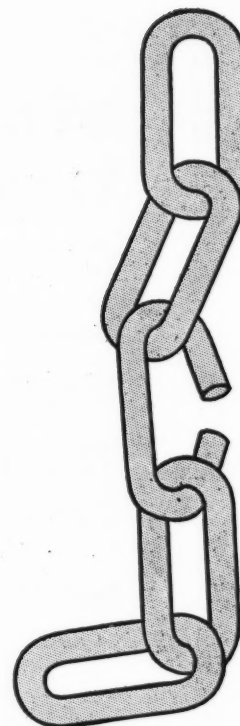
Opex products—used from the metal on up—give a richer and more durable finish. Primers, sealers, lacquer enamels, through to the final reflow coat, form a firm chemical bond that makes a tougher wearing film, a richer lustre and deeper color.

Opex Lacquers and Undercoaters cover more surface, and thus cut material costs. They possess superior working qualities, require less sanding and polishing, reducing labor costs. They cost much less, in the shop, than so-called "cheap" products.

Still more important, the unmatched beauty and durability of Opex builds good will and profitable repeat business for you.

THE SHERWIN-WILLIAMS CO.

Largest Paint and Varnish Makers in the World
CLEVELAND, OHIO

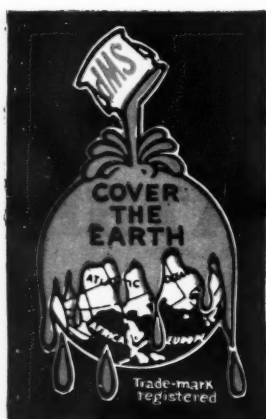


"Modern Automobile Finishing Methods"

Discusses fully the most successful methods of refinishing automobiles with Opex. Valuable to skilled finishers and beginners alike.



SHERWIN-WILLIAMS



LACQUERS

THE SHERWIN-WILLIAMS CO.

Dept. 420—601 Canal Road, N. W.
Cleveland, Ohio

Please send me complete data on Opex Automotive Lacquers.

Business title Name

Address State

City State

With Such Weapons

the Crusade goes marching on!

Post Advertising

The first full page appeared in the September 1st issue. Half page ads are following regularly.

Window Displays

Two special Pyro-Action Posters form the background for an effective window.

Folders

For you, for your sales force, for your customers. Each one specially written to interest one of these groups.



Crusade Buttons

For the lapels of customers and dealers, for dealers' salesmen and the men in the shop.

Still time to Join, and to profit 6 ways!

The Crusade against Spark Plug Paralysis is gaining momentum. Motorists everywhere are installing Original-Bosch Pyro-Action Spark Plugs and enjoying new power. Dealers everywhere are joining the Crusade and enjoying new profits. There is still time for you to join the Crusade and profit in these 6 ways:

1. **Larger Discounts** — Nearly twice as much actual cash profit for you.
2. **Selected Dealers** — Assuring a greater market, more sales, price maintenance.
3. **The Greatest Spark Plug Story Ever Told** — It will tempt any customer to buy.
4. **Money Back Guarantee** — Creates confidence and sales.
5. **Increased Unit Sales** — The guarantee helps sell 4, 6 or 8 plugs instead of just 1 or 2.
6. **Distinguishes Your Store** — You capitalize on the reputation of Robert Bosch for quality.

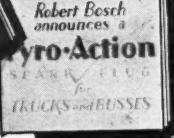
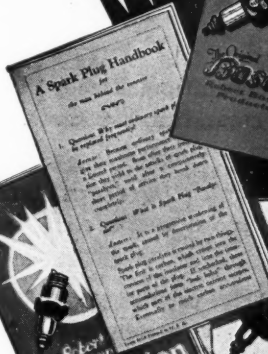
Awaiting you, if you join the Crusade, is your share of the profits resulting from the national and local advertising of Pyro-Action Spark Plugs, as indicated on this page. Write or wire for full information to **ROBERT BOSCH MAGNETO CO., Inc.**, 3601H Queens Blvd., Long Island City, N.Y.

The Original
Bosch
Pyro-Action
SPARK PLUGS

Trade-mark Robert Bosch, & Co.

Window Strips

Two arresting posters for your store door or window.



Millions



and Why

On any street—in any town—anywhere—you will see motor cars Carter carburetor-equipped. The national total mounts into millions.

That this *is* true is not as gratifying as *why* it is true.

It's the old story.

Quality brought recognition. Recognition brought demand. Demand increased volume and made expansion necessary.

Right now in our new plant we are prepared to build not only more carburetors but even better.

Ability to build better, plus responsibility to a creed of quality, have placed Carter in the eminent position it now occupies.

CARTER CARBURETOR CORPORATION, ST. LOUIS
Division of American Car and Foundry Company

a.c.f.

CARBURETOR

T. M. REG.

LANDIS Shock Diffusers*Now Ready for***FRANKLIN, PACKARD, MARMON
CHRYSLER IMP. 80, HUPMOBILE CEN. 8****LANDIS ENG. & MFG. CO.
AUTOMOTIVE DIV. WAYNESBORO, PENNA.****Neil's****Rewound Armatures**

NEIL ARMATURE CO.

CANTON, O.

Weidenhoff**SHOP EQUIPMENT for****BATTERY and ELECTRICAL SERVICE**Test Benches • Rectifiers • Constant Potential Battery Chargers • Lathes
Battery Testers • Mica Undercutters • Growlers

4358 Roosevelt Road

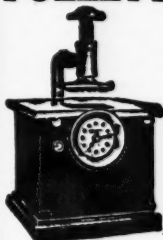
Chicago, Illinois

GRAIGRENE
[PRONOUNCED GREY-GREEN]

the fluid lubricant for transmission and differential

VISCOSITY OIL COMPANY

Central Manufacturing District, Chicago

FOLLETT'S NEW MODEL TIME STAMP

Learn the interesting details from our descriptive data.

accounts for every labor minute

Prints the year, month, day, hour, minute, A.M. or P.M. at the exact moment the plunger is pressed—like this, for example:

NOV 19 1920 4 31 PM

Tells when a job is started—and when it is finished. There can be no dispute over the time charge.

Absolutely automatic — except for winding. Every machine guaranteed.

Follett Time Recording Co., 217 High Street, Newark, N.J.*"Established Since 1904"***FLEXO**
Trade Mark Reg.
**COMBINATION
PISTON RINGS****Guaranteed**

Two combination rings of special design with Expanders of finest Swedish steel. Guaranteed to seal cylinder and centralize pistons, eliminating oil pumping, piston slap and compression loss when properly installed. Write for details.

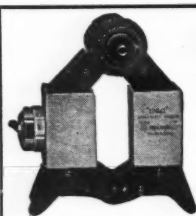
**The Wel-Ever Piston
Ring Co., Toledo, Ohio***This Sign
distinguishes
your shop
from all others***J. WARREN WATSON CO.
Phila. Pa.****WATSON
STABILATORS***Official Sales and Service*

Ideas Build Business and Help Your Profits

Put new and practical ideas at work in your business and both you and your customers will be benefited.

MOTOR AGE is a dynamo of business-getting ideas for live dealers. Ideas that attract trade, reduce overhead, increase sales and add to your profits.

For your own good, read every issue of MOTOR AGE from cover to cover. Spot the ideas that you can adapt to your own business, put them at work and *cash in!*



IDEAL ADJUSTABLE GROWLER

A hinged device to test all armatures from 3/4" to 10" diam. Ideal Adjustable Growlers make the proper span eliminating core or slot shorts. Guaranteed satisfactory or money refunded. Get prices and sales offer.

J. J. ANKENBRANDT
2140 WAKEMAN ST. TOLEDO, O.



BUDD
WHEEL COMPANY
Detroit



THE **DURANT** LINE
IS A BRILLIANT SUCCESS

DURANT MOTORS, Inc.
250 West 57th St., New York, N. Y.

Factories: Elizabeth, N. J.—Lansing, Mich.—Oakland, Cal.—Toronto, Canada

R & R SUPER POWER CYLINDER HEADS
For Chevrolets and Racing Equipment

R & R MANUFACTURING CO.

CABLE ADDRESS RCO

ANDERSON, INDIANA



Model A-AA
for
Passenger Cars

A waving red light is the universal danger signal. Here is a positive warning stop light, with positive profits. Write today for complete information.

The
ILER ELECTRICAL MFG. CO.
5103 Lakeside Avenue, Cleveland, Ohio



Folding Rack
for
Chevrolet and
Model "A" Ford

Platform Trunk Racks
for all other cars
The Bellevue Mfg. Co.
Bellevue, Ohio

..... wait for the improved
RIGHT WAY BRAKE TESTER

Licensed under Patent No. 1264770

RIGHT WAY BRAKE TESTER COMPANY
WATERTOWN, WISCONSIN

The Hand Operated Brake Tester!

License Pat. No. 1264770
Other Pat. Pending



Pedal Depressor
No. 6 Locking Type

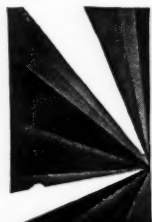
The patented Linendoll Auto Brake Tester gives all information necessary for equalizing brakes on any car or light truck! \$37.50 complete. Write us!

THE NORWALK AUTO PARTS COMPANY
Norwalk, Ohio

Gen. Sales Office
Real Estate Trust Bldg.
Philadelphia, Pa.



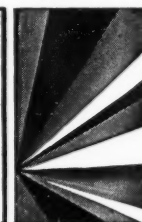
Bigler
Better Built Trunks
BIGLER MANUFACTURING CO.
CHIPPEWA FALLS, WIS.



With the World to choose from
they chose

HOUDAILLE
Hydraulic Double-Acting
SHOCK ABSORBERS
for the ride

HOUDE ENGINEERING CORP., Buffalo, N.Y.



NEW! **MOBILATOR** NEW!
Automatic Starter Control

THE GREATEST AUTO DEVELOPMENT IN RECENT YEARS—
just push in the clutch to start your motor. Write for particulars. Distributors wanted.

MOBILATOR CORP., 2816-333 N. Michigan Ave., Chicago

JUMBO EQUIPMENT
MAKES SERVICE PAY
WRITE FOR CATALOG

The PRICE-HOLLISTER CO. Rockford, Ill.



\$5.00 Buys an Oil Burner for Your Stove

Burns crankcase drainings or any cheap fuel oil. Guaranteed for 5 years, to heat as hot as coal or wood fire. Simple, Safe and Easy to install. Order now. State diameter of fire bowl. (Furnace Burners \$15.00).

The Staples Oil Burner Co., Evansville, Ind.

NEW PRICES!

A new Dealers Net Exchange Price List for Fredericks Lyknu Rewinds is now ready. Free, together with The Fredericks Armature Application List—complete data on every armature since 1920. The Fredericks jobber displays this sign.

H. M. FREDERICKS CO.
LOCK HAVEN PENNA.

AUTHORIZED ARMATURE

Rewinds
LYKNU
by **FREDERICKS**
EXCHANGE SERVICE

CLASSIFIED ADVERTISEMENTS AND BUSINESS OPPORTUNITIES

To locate business opportunities
To sell, rent, exchange or buy
To find men or employment

THE CLASSIFIED DEPARTMENT
WILL HELP YOU

SALESMEN for Neo-X Anti-Freeze. Liberal proposition. Neo-X Products Company, Gladwin, Michigan.

CLASSIFIED ADVERTISEMENTS
IN "MOTOR AGE" ALWAYS BRING
RESULTS.

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The Advertisers' Index is published as a convenience, and not as a part of the Advertising contract. Every care will be taken to index correctly. No allowance will be made for errors or failure to insert.

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The short visor on the modern car makes every new car buyer a prospect for *Visorite*. Fits any visor, can be attached in a few seconds with patent clamps. *No holes to drill*. Attractive—well made—casts a soft green light which dispels all glare.

Lists at \$2.95

Ask your jobber's salesman. If he cannot supply you, write direct giving his name.

SAYLOR MFG. CO., DENVER, COLO.
2205 Champa Street

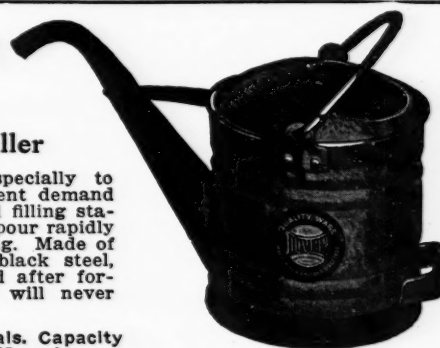
New Dover

Non-Spill Radiator Filler

Designed especially to meet the urgent demand of service and filling stations. It will pour rapidly without spilling. Made of extra heavy black steel, hot galvanized after formation so it will never rust out.

No. 360-R 3 Gals. Capacity
Price \$3.25 each

DOVER STAMPING & MFG. CO.
Cambridge A, Mass.



The busiest dealers with-
in the automotive indus-
try are the readers of
Motor Age.

It keeps them up on their
toes—alert, resourceful and
in position to recognize suc-
cess when it comes their way.

What Does Direct Mail Addressing Cost You ?

Can you get accurate production figures which will cover:

1. Cost of Addressing to Dead Names?
2. Cost of Addressing to Improperly Classified Names?
3. Cost of Making Selections from Your List?
4. Cost of Errors Made by Inexperienced Help?
5. Cost of Keeping Your List Up to Date?
6. Cost of Omitting Good Names Which Are Not on Your List?

The Chilton Automotive List of 135,000 Names Is Corrected Daily

Over 20,000 Names are dropped each year.

Over 25,000 Names are added each year.

Over 50,000 Names and addresses are changed each year.

A force of more than 100 people are kept busy every day to accomplish this, with the result that the Chilton List—with over 95,000 changes each year—is the outstanding leader in its field.

Mechanical equipment makes selections to suit your needs, and complete printing, multigraphing, binding and creative art and copy service are available, in addition to merchandising counsel of our representative in your territory.

You will find a distinct saving in addressing from the Chilton List. Write us for complete details as applied to your particular requirements.

CHILTON CLASS JOURNAL COMPANY

Direct Mail Division

Chestnut and 56th Streets

Philadelphia, Pa.

FLEXIBLE SHAFT AND ATTACHMENTS



No. 1230 PORTABLE TYPE, with 1-4 H.P. A.C. motor and universal joint, 6-in. grinding wheel attached to motor with guard and tool rest. Net price, complete..... \$118.50

Patented
January 15, 1924



No. 1220 PORTABLE TYPE with 1-2 h.p. A.C. or D.C. motor. Net price, complete with attachments... \$128.00

A Modern Speed Tool that meets Modern Needs!

THESE special Sioux Flexible Shaft Outfits for Garages, Repair Shops, Service Stations, etc., save time and labor on many jobs... cleaning off carbon, valve-lapping, drilling, grinding, polishing, smoothing welds, etc. Brings the tool to the work, easy to work with. Built for long, hard service. Roller bearings on shaft—an exclusive Sioux feature—prevent friction and wear. Full power is delivered at the tool with shaft in any position. Remember, time saved means extra profit—especially with the prevailing system of flat rate charges.

Your Jobber Sells It

ALBERTSON & CO.
Sioux City, Iowa, U. S. A.



Chrysler's Sound Success Means Substantial Business and Profits

CHRYSLER has grown steadily from the beginning because of its superior style, performance and value.

Today Chrysler dealers have assurance of ever greater revenue through ever greater popularity based on still greater value.

You should investigate the special advantages which this situation offers you, if you can become a Chrysler dealer.

Wire, write or phone. We will keep your inquiry in strictest confidence.

CHRYSLER SALES CORPORATION, DETROIT, MICHIGAN
CHRYSLER CORPORATION OF CANADA, LIMITED, WINDSOR, ONTARIO

CHRYSLER

